MANUSCRIPTOLOGY

FROM

INDIAN SOURCES

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Indian Manuscript (ms.) tradition shows a wonderful continuity and its vastness surpasses that of any other country. Mss. were an object of high esteem. The offering of a manuscript was accepted as the best of gifts. The epics, Puranas and other sacred texts eulogise such gifts. Loss of or damage in a ms.was considered a great calamity. Scholars negotiated great distances to get a copy of the rare mss. These were an object of worship and they were stored in the best room in the house; they were bedecked and well cared for. In the Agama texts of the south, there are detailed instructions for the construction of the Sarasvati Bhavana, an integral part of the temples. There were huge manuscript libraries attached to the palaces and mutts and scholars like Madhusudana Sarasvati and Kalvindracarya Sarasvati had their personal mss. Collections. But the general policy was decentralization of mss. which were found in remote villages, and the chance destruction of one collection in a village could be replenished by copies from those in adjacent villages.

Professional scribes were there. They copied the mss. for their bread. But the copies prepared and corrected by scholars themselves for their own use and for the use of others were mostly valued. Gift of a ms. was considered highly meritorious. There are instances of the mss. being copied by great scholars like Paksadhrara Misra and Vidyapati Thakur of Mithila. During the periodical or occasional recitations of religious texts, well-versed granthadharakas were engaged beside the reciter The former used to rectify the mistakes in the recitation or those in the ms. of the reciter. Sometimes disputations over such defection was reached and Postponement of the recitation till the decision was reached and the necessary correction was made. Texts used and corrected by a great scholar was valued most.

In course of the preparation of the transcript a scholar would select the flawless and corrected ms. as examplar. Such an exampler used to be honoured with ihe remark on its cover: "kj;Urzs lefiZrfena iqLrde~A

There are detailed descriptions in Purana and Dharmasastra works as to how mss. should be copied, corrected and recited. The aspiration of a scribe that the copy may last long is often found inscribed in the post-colophon statements. The possession of mss. important texts offered social prestige and these were displayed on important occasions. The Asiatic Society received a picture from Lord William Bentinck as presentation. In it the Durbar of the King of Kota in Rajasthan held in honour of the Governor General is depicted. Beautiful and well preserved mss. occupy the central position in the picture. Mss. were considered the poor scholars riches.

A scholar even in the half of the twentieth century spared no opportunity of getting a transcript of a good ms.when he chanced to come across it. There is the instance of the copying of the Gita madhsudani consisting of three hundred folio being copied by the students of the seminary of Sankara Mirsra of Mithila within six hours only. The owner of the original ms., Sannyasin from Varanasi, who chanced to pay a brief visit to the Seminary inscribed his remark on the copy thus prepared-

vgks l'kZilkekzT;esrTTkkuhr lTtuk%A

;ke;qXesu ;=kHkwnsrRi="k=;e~AA[1]

The Nyayavarttikataparyatika of a Vacaspatimis'ra written in 898 Saka Year was criticized by Acarya Jnanasrimitra, the Buddhist and Srivastava a

Naiyayika. Udayana defended Vacaspati against both in or around the Saka year 906 in his Tatparyaparisuddhi. Keen rivalry among scholars and easy movement of mss.made this possible.

An Indian Scholar's fond aspiration was to live among mss.

xzUFkk eekxzr% lUrq xzUFkks es lUrq i`'Br%A

xzUFkk es loZr% lUrq xzUFks'oso olkE;ge~AA

Men of cultural decorated their houses with mss.and a glimpse of the same is found in the Mrcchakatikam of Sudraka[2] where mss. were visible in the houses of Carudatta and Vasantasena. Among the youthful companions of Harsa, Bana mentions iqLrdokpd lqn`f'V]ys[kd xksfoUnd%][3] iqLrd`r dqekjnÙk%A The wandering monk in the Harscarita carries a LFkwylw=fu;fUrzriqfLrdkiqyd% among the rich presents to Harsa by Kumara Bhaskaravarman we find vx:pYdydfYirl«t;kfu lqHkkf'krHkkf«tiqLrdkfuA[4]

Again the Kadambari mentions? kwejäkyädk{kjrky&i=dqgdrUr& eUrziqfLrdk and gfjri=jlk³kje'khefyu"kEcwdokfguk[5] among the belongings of the old Dravida.

Among the eight causes of foolishness, it is curious to note, apathy towards writing ¼fy[kufojkx%½ and the same towards the correction of

mistakes in texts ¼iqfLrdk”kks/ku«t½ are counted. A traditional verse instructs us the ways of preservation of mss.

laHkw’;a lniR;or~ ijdjkn~j{;ap lq{ks=or~

la”kks/;a ozf.krk³ªor~ izfrfnua oh{;ap lfUe=or~A

c/;a c/;onyÜyFka n`<+xq.kS% Le;Za gjsukZer~

uSoa lhnfr iqLrda [kyq dnkI;srn~ xq:.kka op %AA

From the very beginning, the written letters were held sacred. It has been identified with Brahman itself. During the Kali era, Lord Visnu is held as the presiding deity of the written letters dykS fyI;{kjs gfj------

About the origin of the alphabet, there are more than one theories. Narada and Brhaspati inform us that as things are forgotten after the lapse of six months after their occurrence, the creator devised the alphabet for writing. The Tantrika texts prescribe the use of the alphabet in rituals like ekr`dUU;kl] ;UrzfuekZ.k etc. The jain texts would tell us that for the good of his subjects Rsabhadeva, the first Tirthankara invented the alphabet and named it after his daughter Brahmi. Again these texts mention various types of alphabets that evolved in course of time. The Lalitavistara gives the big list of sixty four alphabets.

Mention may be made of the shapes of the letters of the Maithili and Bengali alphabets found in the Tantrika texts which give the description of every curve, line and stroke in them. The Asiatic Society possesses a ms. describing the peculiarities of the Sarada alphabets. Instance of Bengali texts in Maithili as well as Devanagari script show their interrelation.

Of the writing materials, the Yoginitantra advances a big list:

HkwtZs ok rsti=s ok rkfMi=dsA

vxqjq.kkfi nsosf”k iqLrd djk;rs~ fiz;sAA

lEeHkos Lo.kZi=s p rkezi=s p “k³dfjA

vU;o`{kRofp nsfo rFkk dsrfdi=dsA

ekrZ.Mi=s jksI; ok oVi=s ojkuusAA

The Varahitantra describes five kinds of writing according to the modes and materials:

eqnzkfyfi% f”kYifyfiysZ[kuhlaHkokA

xqf.Mdk?kw.klaHkwrk fyi;% i«t/kk erk%AA

The Khadgamalatantra mentions three among them by name-

ys[kU;k fyf[kr foizSeqZnzkfHkj³dra p ;r~A

f”kYifnfufeZra ;Pp ikB;a /kk;ZS p loZnkAA

Writing by pen varied according to the mode and the nature of the pen. Lekhana is derived from the root likha which means inscribing or incising with a stylus where the substance on which the writing is made is slightly damaged. On the

other hand lipi comes from the root lip (lip upadehe) in which the pen is smooth, and something is added without harming the substratum. The former was in vogue in the Deccan while the latter is found in the North. After the introduction of paper, the method of 'lepana' has been adopted by the Southeners also. There was however a slackness in the literary uses as we find in-

Rokekfy[; iz.;dqfirka /kkrqjkxS% f"kyk;ke~ etc. (Meghaduta11).

The size of the pustaka is found prescribed in-

'kM³~xqykf/kd gLr i=eqÙkeehfjre~A

e/;ea gLrek=a L;kr~ lkekU;a eqf'VgLrde~AA

gLrekua eqf'Vekukckgq}kn"kk³~xqyke~A

n"kk³~xqya rFkk p L;kr~ rrks ghua u djh;sr~AA

When paper was introduced as the main writing material, mss.of bigger size came into vogue. There are instances of the mss.in which the palm-leaves were cut in the shape" of rudrakas and the whole of the Bhagavadgita written on the leaves of eighteen such balls so that they may iorm a necklace for the devotee.

The size of the pen, its varieties, the preparation of the ink and the method of writing are also prescribed in Puranic and Dharmasastra texts. The Vallalasena collects the details along with the rituals in connection with the preparation of mss.Here the Nagaralipi is prescribed. The ink is to be put in a silver stand and the pen should be made of gold or other materials.

oa”klwP;k fy[ksn~o.kZ rL; gkfuHkZosn/kzqoe~A

rkezlwP;k rq foHkoks Hkosé rR{k.ks Hkosr~AA

egky{ehHkZosféR;a lqo.kZL; “kykd;kA

c`géyL; lwP;k oS efro`f)% iztk;rsAA

rFkk pkfxze;SZnsZfo iq=ikS=/kkukxe%A

vfxze;SfÜp=dk’Be;S%A

jSR;su foiqyk y{eh% dkaL;su ej.ka Hkosr~A

v’Vk³~xqyizek.ks n”kkì++ysu pkFkokA

prqj³~xqylwP;k ok ;ks fy[ksr~ iqLrda ”kqHksA

rÙkn{kjla[;s rq LoYik;q;kZr oS fnusAA

¼;ksfxuhrUrzs r`rh;Hkkxs lIre% iVy%½

The scribe should be endowed with the best qualities of the head and heart. Here the Kavyami mamisa of Rajas’ekhara adds that laLdkjfo”kq);FkZa loZHkk’kkdq”ky% “kh?kzokd~ pkoZ{kj bfMªrkdkjnsoh ukukfyfiK% dfoykZ{kf.kdÜp ys[kd% L;kr~A

The Danasgara adds that the learned scribe should select the best examplear, read, re-read and corrected by the learned scholars and slowly and patiently prepare the new copy. When complete, it should be compared with the original with particular attention to the visargas, bindus, short and long vowels as well as the conjunct letters.

This is called Samikarana. The pustaka thus prepared should be led in a procession to a temple, evidently for drawing attention of the public to its addition to the mss.collection there. Periodical recitation of the text in public has also been prescribed.

The Amarakosa defines a pustaka as iqLr ysI;kfndeZf.k some other texts adds that a pustaka may be written on bricks, wooden planks, leaves, cloths, hides or metal sheets or stones:

e`nk ok nkjq.kk okFk oL=s.kkI;Fk peZ.kkA

yksgjrzS% d`ra okfi iqLrfeR;fe/kh;rsAA

The Kavyaminamsa prescribes the preparation of several copies of the newly composed texts lest the single one gets destroyed. It might have been the general rule as we hear that a copy of the Naisadhiyacarita of Sriharsa was sent to and evaluated in Kashmir. Rajasekhara counts the ways of the destruction of mss.

fu{ksiks foØ;ks nkua ns”kR;kxks·YithohrkA

=qfVdk ofàjEHkÜp izcU/kksPNsngsro%AA

nkfjnz;a O;lukfäjo>k eUnHkkX;rkA

rq’Vs f}’Vs p fo”okl% i«t dkO;egkiFk%AA

These hold good in the case of manuscript in general. It further adds that laziness on the part of the author and political upheaval in the region may also be the causes of the destruction of the poetic composition. Rajas’ekhara incidentally quotes the views of the Acaryas on the accessories of a poet.

rL; lEiqfVdk leqn~xd% lys[kuhdelhHkktufu rkfMi=kf.k HkwtZRopks ok lyksâd’Vdkfu rkynykfu lqlae``’Vk fHkÙk;% lrrlféfgrk% L;q%A rf) dkO;fo|k;k% ifjdj bfrA[7]

A manuscriptologist would gather from the above some interesting material about manuscripts and the accessories of scribe during Rajas’khara’s time.

The Pauskaragama directs as we have already mentioned, the construction of the Library room in a temple and decoration thereof for the preservation of mss.Mention of mobile libraries Sancaradana has also been made.

The foreign travelers braved the waves and deserts to collect Indian texts. Indian travelers also did a lot to preserve our texts in adjacent countries either in original or in translation. The case of migration of Indian mss.in China, Mongolia, Ceylon, Japan and particularly in Tibet, is well known. Tibet has preserved a huge number of our mss.most of which were lost in India due to neglect or foreign invasion.

Thanks to the efforts off Csoma de Koros, Sarat Chandra Das and particularly of Mahapandita Rahula Sankrityayana that we have had the fortune of getting back most of the works of Asanga, Vasubandhu, Dharmakirti, Pranjnakara,

Jnanans'rimitra Dharma Kardatta, Durv ekamis'ra, Karnakagomin, Ratnakirti and others. They have not only presented to us our lost treasures but they immensely helped us to understand the Nayaya, Vaies'ka and Minimamsa texts with which they are immensely connected.

The discovery also fills up the lacuna in many a case. Jananas'rimitra and Ratnakirti come between Vacaspati and Udayana where was no known Buddhist author in the gap. But the relative chronology of Sankara, the Naiyayika Vittoka, Satananda and others who have been put forward by the above mentioned newly discovered works could not be ascertained. Here also study of mss.and Tibetan Xylographs may be of immense help.

References:-

1. History of Navyanyaya in Mithila pp.135.
2. III Act after 18th verse.
3. Harasacarita, p. 74 (Chankhambha Vidya Bhavan ed.)
4. p.387
5. Kadambari, p.644(Chankhamba, 1976).
6. See Kavyamimamsa.

2) LEXICOGRAPHY

Lexicographical works in Sanskrit may be divided into three groups (1) Synonymous (2) homonymous (3) and dealing with genders. But they often overlap each other and make it difficult to distinguish one group from another.

Historically the lexicographical literature in Sanskrit may be divided into three periods. (1) Pre-Amara, (2) Amara with its modification, commentaries, and applendices (3) Post-Amara.

The oldest lexicography in Sanskrit is the Nighantu, it is called Samamnaya, that is, it had to be memorized by every Brahmin. It is the outcome of the habit of ancient Indian rsis of indexing.

They indexed synonyms of different things and animals and put them together, thus was the Nighantu formed. It is a dry string of words with no subjects or predicates. It has not been given even the attraction of a versified form, it is in dull prose. It is divided into five chapters. “The first three being arranged in synonymous groups of nominalmal as well as verbal basis, the fourth containing lists of inflected words whose meanings are to be determined from the context and the fifth, lists of different deities.”

Yaska’s Nirukta is said to be a commentary on the Nighantu. It gives the meanings and derivations of Vedic words, and in the course of their explanation gives traditional, theological and philological information of the highest value. It contains 12 chapters, divided into two groups, Pura-satka and Uttara-sakta. It has a parisista, too. Some divided into two chapters, others say that there is only one chapter. Each chapter is divided into five to seven padas. The number of khandas in the whole work is 480 the number of padas is 57.

The Biblotheca edition of the Nirukta in 4 volumes contains the text of both the Nighantu and the Nirukta. Nighantu has the Commentary of Devaraja Yajva, son or Yajnes’vara, native of a suburb of Rangesapuri in Daksina-patha. As

the author quotes from Bhoja, Kstra-svami and Uvata, he seems to belong to the 12th century. He studied a large number of Veda-bhasyas current in Southern India and a number of works on Panini. He seems to have supplied all that was wanting in Yaska's Nirukta in explaining the Nighunta.

The Nirukta in that edition is accompanied with the commentary of Durgacarya. He styles himself Bhagvat and says that he lived in Jambu-margas'rama. He seems to have come after Deva-raja Yajva.

Yaska, the author of the Nirukta, seems to have preceded Painni as his classification of words is crude and primitive into 4 parts of speech, nama, akhyta, upa-sarga and nipata while that of Panini is logical and refined, into subhanta and tinanta. His idea of up-sarga is very rudimentary. The twenty particles pra, para, etc., have under different circumstances received different names in Panini; when joined with verbs they are upa-sargas, when joined with nouns they are called gatis, while modifying the inflections of words they are called Karmapravacaniyas. These refined definitions are not to be found in the Nirukta (see my Magadhan literature p.30). In Vedic literature upa-sargas are often placed at a distance from verbs; all this shows that panini is posterior to Yaska. How much posterior, it is difficult to say, but two hundred years, I think, would not be too much. Yaska does not mention Panini, does not use his nomenclature and does not know of the rules of interpretation of sutras; while Panini derives the world Yaska and rejects the theory of the Nirukta-karas that all words can be derived from Sanskrit roots. In some cases Yaska and Panini quote the same authorities, but many of the authorities mentioned by Panini are not to be found in yaska.

After Nighantu and the Nirukta come the group of lexicographers. Vyadi, Katya, and Vararucci. Vara-ruchis Lingavrtti is to be found in our Catalogue No.4629. The work contains a number of sutras with their vrtti commentaries, the whole is attributed to Vararuci, but the sutras seem to be older. The work was spoken by Vararuci in answer to a question by one of his students on the subject of genders, which forms, as I have said before, the third phase of lexicography.

Jaya-simha's work also treats of the genders of nouns, but the author says it is written in the interest of young learners. It divides nouns into common nouns, and proper nouns. All adjectives follow the gender of the noun, with the exception in a few cases. Jaya-simha wrote this book for putting a stop to irregularities and for the preservation of the decided opinions of scholars.

The MS. of Linga-varrtika was copied in the regin of Vira-simha of Mithila in La-Sam 228. It was written on fine paper and with excellent ink, sometimes with gold, by Pasupati. Vira-simha's date given here does not agree with that given in Kirti-lata, La-sam 253.

There is another book in our Catal.No.4631, which appears to be ancient because it refers to Vara-ruci, Vyadi, and Bhaguri. It is anonymous but the date of copying is La-Sam 372 equal to about 1486 A.D.

Ramavatra Sarma, in the introduction to his edition of Kalpadru, says "it would appear from the above that in the opinions of Sarvananda (1159) and Ksira-svamin (11^{th} century) Vyadi, Vara-ruci, Bhaguri, and Dhanvantari among the authors, and the Tri-kanda, the Utpalini, the Ratna-kosa and the Mala among works,

preceded Amara and his work. Katya or Katyayana and Vacas-pati, too……. appear to have preceded Amara".

The same authority quoting a couplet from Hara-vali says that Sabdarnava, Utpalini and Samsaravarta are respectively the kosas by Vaca-pati, Vyadi, and Vikramaditya. Vyadi's kosa seems to have arranged like the Amara-kosa in synonymous groups with a chapter on homonymous (see his introduction to Kalpadru Kosa p.xi). The Kosa seems to have been a part of Vyadi's voluminous work, the Samgraha , in 100,000 verses of 32 syllables each. Vyadi seems to have been acquainted with Buddhist theology and he often tries to give the meanings of words through derivation.

Many ancient authorities consider Katya, Katyayana, and Vara-ruci as synonymous. But R.Sarma thinks that Katya and Vara-ruci are different persons, one wrote a complete kosa and the other only the Linganusasana. The name of Katya's kosa seems to have been Nama-mala.

R.Sarma says "According to Aufrecht.Bhaguri's kosa was most probably the Tri-Kanda which is often quoted" and he seems to incline to accept this view. This Tri-Kanda. Of course, is not Amara-Kosa which has also has three Kandas.

R. Sarma says "That the Ratna-kosa was divided according to Sarvananda, (page xiv) into sections after the genders. It was synonymous, any word with a different gender from the rest of the section having been distinguished either by a special word or definition". But we have MS. of Ratna-kosa, 4703A, in which the name is preceded by Vastu-Vijnana. It is an enumeration of things of definite numbers. It begins in the style of old sutra works "Ratna-kosam vastu-vijinanam

vya khyasmah”. It has one hundred sutras. But in the enumeration of countries and of the dynasties ruling in India, there are many names which do not appear to be very old.

Amra-mala, known only in quotations, appears to be another ancient work, as Halayudha in the 10th century seems to quote from it.

Vacas-pati’s kosa is most probably Sabdarnava. It gives as many synonymous together as possible and gives different spellings or forms of the same word.

Dhanvantari seems to be another predecessor of Amara. He wrote a medical Nighantu in 9 chapters. It gives also the medical virtues of drugs and is the basis of all later medical Nighantus. Wilkins found an inscription at Bodh Gaya of Amara-deva dated 581 A.D. But the inscription has been lost, and it is doubtful whether the Amara-simha and the Amara-deva are one and the same person. Amaras work is entitled Nama-liganu-sasana. It has three kand as divided into twenty-four vargas containing altogether 1503 verses unequally distributed. In the preamble it gives the paribhasas of the dictionary. Each group of synonymous is either preceded by ‘atha’ or followed by ‘tu’. The homonymous portion is arranged after the final consonants. Avyayas form a separate verga. The books ends with certain general rules for determining genders, so it is a complete kosa giving all the three phases, homonymous, synonymous and genders. There are altogether 1503 verses in the work (Madras III, P.1129).

Lassen says that it was translated into Chinese prior to the 6th century A.D. The earliest quotations from this work is to be found in Nyasa of Jinendra-buddhi,

which has been placed by its editor between 725 and 750 A.D. Amara seems to have cast all previous kosas into shade and they have gone out of currency.

In our present catalogue there are two work which may be considered as supplements to the Amara-kosa, viz,. Catal. Nos. 4653 and 4655, the first is Tri-kanda-sesa by Purusottama-deva and the second Mukta-vali or Visva-locana by Sri-dhara, the son of Muni-sena. Tri-kanda-ses a has been several times printed. The author like Amara was a Buddhist. Amara gives 17 names for Buddha and five for Sakya-muni but Purusottama adds thirty-seven more names for Buddha and three more names for Sakya-muni. During the centuries between Amara and Purusottama, Buddhism developed several Yanas, and the words given currency to by these Yanas, have all been given by purusottama and not by Amara. At the end, Purusottama says that words in constant use only are recorded in this work. Obsolete and obsolescent words, though found in Panini and others, have been neglected. There is a MS. (No.4654) of this work in our catalogue in which names in a string of synonymous are separated by comas or slanting strokes. Groups of synonymous are separated by two such strokes which serve the same purpose as semi-colons, but unfortunately the MS is a mere fragment. The author of the Visva-locana says, at the end of his long preamble, that Amara has woven a silken cloth and the author is setting pearls in that cloth. These pearls he has collected from great poets of the intervening ages. The author belongs to the Sena family. His father Muni-sena was proficient in Nyaya-sastra. The author Sridhara seems to have been a Buddhist, because in the eighth verse for the preamble he says that he has placed himself unreservedly at the feet of Buddha. His father seems to have renounced the

world participator of his wealth. The words are arranged in alphabetical order of the beginning and of ka.etc., at the end.

Sesa mara mentioned in Vol.III, page 1218-19 of Rangacari's Catal. Of sans. MSS. in the Govt. Oriental. MSS. Library, Madras, is another supplement to the Amara-Kosa. The name of the author does not appear there, but it adds many words and gives supplementary rules for genders of words.

Amara-Khandanam by Sri-harsa, most likely the author of the Naisadha-carita, is a serve criticism of the Amara-kosa. It criticizes the genders of words. A synonymous of gold is Jamibu-nada. Amara puts it down as neuter, gender but Sri-harsa points out that it is used in masculine gender also. The writer says that the exposure of Amara-simha's mistakes will be made enjoyable in this work, though it is a very short one of 11 leaves only the same Catal. Vol.III, p. 1112)

Of the commentaries on Amara-kosa, and there are-scores of them, four are most important. Of these (1) Amara-kosod-ghatanam by Ksira-svami was written in Kasmira in the 11th century (?) (2) Tika-sarvasva by Sarvananda Banerji written in Westren Bengal in the year 1159 A.D. (3) Pada-candrika by Raya-mukuta at Gauda, in 1431 A.D., and. (4) Vakya-sudha by Bhanuji-diksita who after renouncing the world obtained the name Ramas'rama at Myhiri, in Baghelkhand, about the beginning of the 17th century.

All the four are very learned works quoting from large number of authorities in support of Amara's statements. Ksira-svami was a Sabdika of the first water. Besides the commentary on Amara, he has written learned works on Sanskrit roots and Sanskrit particles. His was a matter of conjecture but R. Sarma has pointed

out that he quoted from Bhoja, and so he comes at the end of the 11th century, and he is quoted by Vardhamana in his Gana-ratna-mahodadi in 1140 A.D.

Sarvananda Banerji wrote his work in Western Bengal, but the MSS. of his work have generally migrated to southern India and it has been published in the Trivendrum series. The only MS. of the work in the Asiatic Society's library is in Oriya character. It is reported that the Dacca University has got a copy in Bengali character. If so, it will help greatly in deciphering the numerous Bengali- words which the commentator has used to explain Sanskrit words given in Amara. These Bengali words coming through Tamil, Malayalam, Telugu and Oriya are hard to decipher and Bengali scholars are at great difficulty, some deciphering in one way and others in another. Sarvananda quotes from about twenty Buddhist works in his commentary. In the preamble he says that he studied ten commentaries on' Amara-kosa and at the end he says that he studied three systems of grammar, looked into all works in poetry, listened with attention to wise teachers and his commentary has been corrected word for word and letter for letter by Sana tana.

Brhas-pati, a descendant of the five Brahmanas brought by Adisura to Bengal, belonged to Vatsya-gotra and the family settled in the village of Mahinta and therefore called Mahintapaniya. He was one of the prominent figures in Bengal in the beginning of the 15th century. At that time a dynasty of Bengali Kayasthas wrested the Sultanate of Bengal from the Mohammedans and reigned for forty years, though the second Sultan of this dynasty married the heiress of the old Has-shahis of Bengal and became a Mohammedan. The Tomb containing the remains of Asman-tara the heiress, of jadu or Jalaludin, and of his brother Ahamad is one of the

most prominent buildings to be seen at Hajrat Pandua, in the district of Malda. Though converted to Mohammedanism, the Sultans of this dynasty brought about a revival of Sanskrit and Bengali studies, and Vrhas-pati Mahinta led this revival. He wrote commentaries on standard works on kavya, a commentary on the Amara-kosa entitled Pada-candrika and a Smrti work entitled Smrti-ratna-hara. He was given the titles of Kavi-cakra-varti, Raja-pandita, Acarya-varya, Pandita-sarva-bhauma, and Kavi-pandita-cuda-mani. While giving him the title of Raya-mukuta, the king made him ride on an elephant, bathe on it in a variety of says according to the sastras, gave him the title of Raya-mukuta, two umbrellas, horses, a jewelled necklace brilliant with the rays of gems, two bright ear-rings and ten urmikas set with many precious stones covering the ten fingers of the hands.

His father was Govinda and his mother was Nila-mukha i-devi; his wife was Rama who was dead at the time of writing the commentary. He had many sons two of whom are named Visrama and Rama; they were al poets who defeated the victorious in controversy, they were writers of many works in a variety of sastras and they made great gifts such as “Tula-purusa, Brahmanda and many others”. The Sultan of Gauda gave him the title of Pandita-sarva-bhauma. In his commentary on Amara he has embodied the substance of 16 previous commentaries. He consulted many authorities of whom more than ten were Buddhist.

Bhanuji Diksita’s commentary also consults a large number of authorities but he, true to the traditions of his family, supports the orthodox Brahmanic views of Panini’s interpretations as against the Buddhist.

Another commentary to the Amara-kosa is Manorama (Catal.No.4661), the MS. itself is dated Saka 1540 and it contains the horoscope of two of the sons of the owner dated Saka 1551 and 1562. Abhidhana-bodhani is a commentary on Amara-kosa by Lakshmi-dhara, Catal.4662.

Piyusa, another commentary by Rama-krsna Diksita, son of Govardhana Diksita, is composed in Samvat 1694 and based principally on Raya-mukuta's commentary (Catal.No. 4168).

Pardhartha-kaumudi is by Narayana Cakravarti (?) later than Raya-mukuta whom he quotes, consults about 64 previous works (Catal.No.4669). It was composed in saka 1570.

Pada-manjari is another commentary on Amara-kosa by Loka-natha Sarma who appears from his mangalacarana to belong to the Caitanya sect. He may be the same Loka-natha Cakravarti who commend on the Ramayana and other works.

Mugdhabodhini is by Bharta Malika (Catal.No.4673), who is generally regarded as belonging to the beginning of the 18th century, but who as Mr.R.Sarama points out, is quoted by Durga-dasa-vidya-vagisa in his commentary on the Kavi-kalpadruma in 1639 A.D. The commentator follows the Mugdha-bodha Vyakarana.

Lingadi-samgraha-tippani or Tri-kanda-rahasya-prakasa or Tri-kanda-vivek is by Rama-natha-vidya-vacas-pati (4677). In the beginning the commentator mentions a large number of authorities from whom he quotes.

Ratna-mala is by Ratnes'vara Cakravarti (4681).

Amaroddyota by Purusottama Tarkalamkara quotes from 29 works (4682).

Pancyatani-vyakhya (4687), it is called Pancyatani because it gives five different interpretations to the mangalacarana of Amara-kosa.

Sabdartha-sandipika is by Narayana Nyaya-pancanana (I.O.964). He boasts that he is the Pandita for Amara-kosa, Bhatti, and Samks ipta-sara.

Sara-sundari is by Mathure'sa vidyalamkara-Bhatta, son of Siva-rama Cakravarti. The commentator says that Raya-mukuta wrote his commentary according to Kalapa so he is writing it according to the Supadma Vyakarana (I.O.968-70).

In the assembly of the Brahmanas of Radha held at Ayeda near Kalna, Sarvananda Banerji of Napadi became the head of an endogamous group of Brahmanas named Sarvnandi-mela. His son was Madhava. Madhava's son was Kasi-natha. Kasi-natha's son was Candra Banerji; his son was Siva-rama. Siva-rama's son was Mathuresa Vidyalamkara who wrote this commentary is Saka 1588, equal to A.D. 1666. So there were six generation between 1482 and 1666. He does not seem to be the same Mathures'a who wrote Sabda-ratnavali under the patronage of Masanenda Elli Khan.

Laksmana Sastri, son of Visvesvara Sastri and Bhavani who lived at Kasi, wrote a short commentary on Amara-kosa for the benefit of the people of Karnata (1.0.972)

Nayanananda Sarma writes the Amara-kosa-kaumudi in which he gives same passage from Raya-mukuta's Pada-candrika,- bnkuh p "kdkCnka 1353 without any indication of its being taken there from (I.O.982).

Samanta-sara is a place in the district of Faridpur inhabited chiefly by Vaidika Brahmanas. A resident of place named raghu-natha Cakravarti wrote at the instance of krsna-vallabha a commentary on the Amara-kosa entitled Tri-kanda-cintamani (1.0.984). Raghunatha has quoted from various kosas and tried to show that they mean the same thing.

Rama Tarka-vagisa's commentary on the Amara-kosa is given in 1.0.985. It is suited to the capacity of young men of tender age. R. Sarma says, in his Introduction, page xxi, that this commentator follows the Kalpa system of grammar and so he is not the same Rama Tarka-vagisa who wrote a commentary on Mughada-bodha.

Sesa-giri Sastri, in his report for the year 1893-94. Says under No.12 that Linga-battiya is the latest of the commentaries on the Amara-kosa and is most copious and useful. From the third kanda of the commentary only the Sastri gives the number of authorities quoted as 171. In Sarvananda (1159), Raya-mukuta (1431), and in Linga-battiya the number of Buddhist authorities becomes beautifully less and less.

R.Sarma in p.xxi of his Introduction, says that Tri-kanda-cintamani of Raghu-natha Cakravartin and Amara-vivek by Mahesvara are the two latest commentaries.

The lexicographical works after Amara may be divided into two great periods (1) from Amara to Medini (2) from Medini to the present day.

Anekartha-samuccaya by Sasvata is a homonymous lexicon in 800 verses divided into six sections. The fifth and sixth are devoted to indeclinables. The writer

says at the end of his work that learned men like Khudula, the courtier of Vidya-vilasa looked carefully through his work which was done in consultation with the poet Maha-bala and Varaha, as his treatment of synonyms is fuller he seems to have come after Amara Ksira-svami quotes him.

Abhidhana-ratna-mala by Battiya Halayudha follows the Amara-kosa. It has four kandas, Svarga, Bhumi, Patala and Samanya, and a fifth dealing with homonyms and indeclinables.

Halayudha belongs to the middle of the 10th century. He wrote a commentary on Pingala at the court of Munja of Dhara. He wrote the Kavi-rahasya. A work on Sanskrit roots in honour of king Krsna-raja III of the Rastra-kuta family. All his three works are still regarded as authoritative.

Yadava-prakasa was the preceptor of Ramanuja. He was a very learned man. But in his old age he became a disciple of his disciple, gave up the Advaita-vada of Sankara and became a Vaisnava of the Ramanuja School. He seems to have flourished in the middle of the 11th century near Kancipura. His dictionary named the Vaijayanti is still regarded as an authoritative work. The synonymous section of his work is divided into five kandas, Svarga, Antariska, Bhumi, Patala and Samanya, and the homonymous section into three

(1) words of two-syllables,

(2) words of three-syllables, and

(3) Words of many syllables.

Each kanda is divided into many adhayayas. It arranges words in the homonymous section in alphabetical order of the initial letters.

Visva-prakasa is a homonymous work arranged according to the final consonants, words ending in certain consonants are subdivided according the number of syllables they consist of, thus we have titles of chapters, kaikakam, ka-dvkkam, ka-trikam. Etc.

The work was written in 1111 A.D. The author was a Buddhist because his mangalacarana though it does not mention Buddha is fully Buddhistic. His father renounced the world and only by Buddhist and not by Brahminists. One of his ancestors was Hari-candra, a commentator of Caraka, who was the chief physician of king Sahansanka, another of his ancestors was the chief physician of the king of Kanoja. He gives a long description of his ancestors but the description seems to be a bit confused. Modern writers have placed various interpretations on it. The author wrote poem entitled Sahasanka-carita. The family was distinguished for their medical skill and their learning.

The author seems to have belonged to Eastern India where va and ba are similarly pronounced and where little distinction is made in the pronunciation of the three sibilants sa, Sa and sa. This is not the case in middle India and in other parts of India. The author has a supplement to his Visva-prakasa named Sabda-bheda and Usma-bheda. Mahes'vara admits the compound letter ksa in the Sanskrit alphabet. This is rarely done by Brahmins. The dictionary has a commentary called Visva-nighantu by Parames'vara Bhatta, but MSS. of the commentary come from southern India.

Manikha, a resident of Kasmira, wrote a homonymous dictionary entitled Anekartha-kosa. Like Visva-prakasa. It is arranged in the alphabetical order of

the final consonants, each having several sections according to the number of syllables in the word. Mankha also takes ksa as a part of Sanskrit alphabet. A commentary on Mankha is still extant. It may be either by himself or by one of his immediate pupils. It has been quoted by Mahendra Suri, the commentator of Hema-candra. The lexicographer is said to be the same person who wrote the Sri-kantha-carita published in the Kavya-mala Series. It was written during the regin of king Jaya-simha of kasmira 1128-1149, (our Catalogue No. 4710).

Anekartha-dhvani-manjari by Maha-ksapanaka of kasmira. It is divided into four parts. Sloka dhikara, Ardha-slokadhikara. Padadhikara, Ekaksara-pada. Rajendralala Mitra speaks of another chapter called Sabdadhikara. There are several works of this name, some are anonymous. That by Gada-simha has been given later.

Nanrartharnava-samksepa is by Kesava-svami, an officer of Rajaraja, the son of Kulottunga Cola. Rajendra Cola established many Agra-haras or brahmana settlements for the residence of learned men with the superhuman power of rsis. One of these Agra-haras was dedicated too the Mahes varas or worshippers of Siva. It “was regarded as the crest jewel of the prosperous empire. It was named after Rajendra Cola. In the Agra-hara lived Kesava-svami, a professor of Sama-veda and belonging to theVatsya-gotra and he was an employee of the king. One day the king ordered Kesava-svami to write a book in which the gender of words can be easily ascertained. It should be divided into six kandas with words of one, two, three, four, five, and six vowels each and each kanda should be divided into five chapters, treating of feminine, masculine,

and neuter genders, as well as genders of adjectives, qualifying nouns, and of nouns of many genders. The words should be arranged according to initial letters. So Kesava-svami wrote this enormous dictionary consisting of nearly 5,800 verses. The work is written in the same plan as the Vaijayanti of Yadav-prakasa. He quotes from about thirty authorities and treats of the Vedic words also.

It is difficult to ascertain the date of Kesava, though he was an officer of Raja-raja, the son of Kulottuniga, because there are two Raja-rajas, both sons of Kulottuniga, on in the 12th and the other in the 13th century. So MM. Gana-pati Sastri left the matter open by saying that Kesava might belong to either of these regins. But the last Raja-raja was defeated and imprisoned by the pallavas. While the first Raja-raja was a conqueror and was an enemy of the Vaisnavas belonging to Ramanuja sect. He revoked certain grants to the Mahesvaras because they showed a leaning towards Vaisnavism. I, therefore, place Kesava-svami in the regin of Raja-raja I about 1160 A.D. (p.84.of the annual report of south Indian Epigraphy for the-year ending 31st March, 1925).

Two most prominent men in the department of lexicography of this sub-period are undoubtedly Purusottama-deva, a Buddhist, and Hema-candra, a Svetambara Jaina. Purusottama has been mentioned as the author of the Bhas-vrtti in the grammar section of this preface, and his Tri-kanda-sesa has been mentioned in connection with the supplements of the Amara-kosa. He wrote another lexicon named Haravali, treating of uncommon words in words in 278 verses divided into two groups, one synonymous and the other homonymous.

The synonymous group extends over a full verse, and a half verse, and a quarter verse. The group in three section, half verse, quarter verse, and a single word. Purussottama seems to have taken very great care in writing this small work of obsolescent words. In one place he says he had to remain a guest of Dhrti-simha for twelve months, and in another, he says that Janamejaya and Dhrti-simha, both helped him in writing this work and all experienced poets know how much troubles has been taken for this kosa. It took him twelve years to write this rather very useful work. He says in verse 273, that the kosa Sabdarnava is by Vacas-pati, Utipalini by Vyadi, and Samsaravarta by Vikramaditya. He has taken the substance of these and other works in preparing the Harvali. In this work the author salutes Maha-deva in the opening verse and names Buddha nowhere.

Sesa-giri Sastri has pointed out in page 41 of his report for 1893-94 that when writing Tri-kanda-sesa, Purusottama had not the title of Mahamahopadhyaya. That title was conferred on him before the Harvali was written.

The other great writer of this period is Hema-candra. I have given an account of him in the grammar section of this preface. In lexicon, he has written four works.

(1) Abhidhana-cintamani which has been printed in Yaso-vijaya-jaina-grantha-mala, and a description of the book and of its commentaries has been given by R.Sarma in his Introduction, page xxxviii.

(2) Anekartha-samgraha, edited at Vienna, consisting of 1829 slokas divided into six kandas after the number of syllables, to which is added a

supplementary kandas on the avyayas. In each kanda the words are arranged in 'two fold alphabetical order. First after the final consonants, second after the initial letters, so that it becomes almost as easy to find out a word here as in a modern dictionary. The genders are not noted. They are to be learnt from the authors Linganusasan. To this work there is a commentary by Hema-candra's pupil Mahendra Suri who out of respect for his guru, ascribes it to him

(3) The third work is Nighantu-sesa, which is a Botanical supplement to his Abhidhana-cintamani-"It consist of 396 slokas divided into six kandas, vrksa, gulma, lata, saka. trna, and dhanya"- Introduction R.Sarma.L.

(4) The fourth is Desi-nama-mala, a Prakrta dictionary in which the author has utilized the Paiyalacci, a Pali dictionary. Hema-candra's work deals with only Desi words as opposed to Sanskrit words and its derivatives (tad-bhava, and tat-sama). It is divided into 8 chapters called Vargas and the words are arranged after the initial letters and the number of syllables. Homonymous are placed just after words of one meaning beginning with the same letter and there is a commentary by the author himself.

Medini's lexicography is called Nanartha-sabda-kosa. Its date was hitherto considered to be between Visva-prakasa in 1111 A.D. which he quotes and Raya-mukutta who quotes him. But Mr.R.Sarma has pointed out that Malli-natha and Padma-nabha also quote for Medini's and they both belong to the last half of the 14^{th} century. Medini's authorities are almost the same with those of Sarvanada (1159A.D.)- His date therefore should be somewhere between 1159

and 1350. and if the quotation from Medini in the commentary of Mankha's kosa is genuine Medini must have flourished in the earlier half of this period.

Medini Kara describes himself as the son of Prana Kara who was the ruler of the Northern provinces of the Udisya kings of the Ganga dynasty. The capital of his province was an inland town. Medini Kara removed it to a place on the Kasai where he founded a city after his own name; that city is still an important town in Bengal and is called Medini-pura. (I.B. and O.R.S.Gazetteer literature of Bengal, Vol. IV, 1918.p.16.)

There are two estimates of the worth of Medini-kosa. Afrecht says "The Visva-prakasa is quoted, pilefered, and abused by Medini Kara", while Sesa-giri Sastri speaks of Visva-prakasha in disparaging terms and extols Medini-kosa. He says, "It is very copious, containing all words according to their final letters as Kanta, Khanta, etc., and each of these groups is arranged according to the number of syllables, as monosyllables dissyllables, trisyllables, etc., and again according to the order of initial letters. Of all the works of the kind I have seen, this is the best. The author gives a list of lexicographers and other authors whom he has consulted and very rightly condemns the Visva-prakasa of Mahesvara which he includes in the list as a work of many defects in the following passage:-"Api-bahu-dosam Visva-prakasa-kosam ca suvicarya" pp. 42-43 of his report for 1893-94. Again in page 47. "Whatever may be the boast of the author about the merit of the lexicon (Visva-prakasa) the work has one defect, namely, that the genders of the words whose meanings are given are not mentioned and the words are not properly arranged. These are the defects which were carefully

avoided in the Medini-kosa, and the author of that work very fitly condemns Visva-praksa."

During this sub-period, there were written a number of lexicographies by various authors who are known only from quotations in Sarvananda, Hema-candra, Mahesvara, Medini, Hala yudha, and other writers of the 12th and 13th centuries A.D.R.Sarma gives the names of thirteen of these work which there are MSS. of three only. The others are mere names still, but they are historical names as quotations from them occur in authentic works. (No.8 para 12 of his introduction.)

Of the three works of which Mss. exist, Nanartha-Samgraha by Ajaya-pala is a homonymous vocabulary, which begins with a salutation to Buddha, contains 1730 words based generally on the Sasvata-kosa. The avyayas are not collected at the end of whole book as in other kosas but placed at the end of each chapter. The second is Nama-mala of Dhananjaya, a lexicon of synonymous terms. The author seems to be a Digambara Jaina. He refers to Akalanka and pujya-pada, both Digambra Jainas. He says he has written only two hundred slokas. Dhananjaya's Nama-mala seems to be very popular in the Karnataka country as there are commentaries on it in Kanarese. This is given in pp. 1612-1615 of the Madras Catalogue, Vol.III. But in No.1616, there is another work attributed to the same author. The work is entitled Nighantu-samaya in two paricchedas. The first pariccheda is the same as the Nama-mala but the colophon of that pariccheda is peculiar, "ItiDhannajaya-krtau Nighantu-samaya-sabda-samkirna-phaniti Prathama-paricchedah samaptah. The second pariccheda also

has a colophon bfr /ku«ta;d`rkS fu?k.Vqle;s le;”kCnlD³sh.kZiz:i.ks f}rh;% ifjPNsnkA The two paricchedas contain altogether 251 verses. Burnell speaks of a work by Dhanjaya in three sections;

(1) Sabda-Samkirna-rupana.

(2) Sabda-Samkirna-Prarupana.

(3) Sabda-Vistirna-rupana-Pariccheda.

Dhanjaya is said to have written a kavya entitled Dvi-sandhana-kavya, in the year 1123 A.D.

The third work of this list of which Mss.exist, is Dha-rani-kosa or Anekartha-sara arranged after the final consonants and the number of syllables. He includes kosa in the alphabet like most non-brahmanic writers.

I refrain from giving the names of the other ten works of this as we know nothing about them except that they are quoted.

In the Madras Catalogue, Vol.III, page 1170, on grammar, lexicography, and prosody, mention is made of a dictionary by maha-kavi kalidasa and the cataloguists puts down the name as a kalidasa. The work is entitled Nanartha-sabda-ratnam. B., Sarma has but slightly noticed this in the para 18th of his introduction. I want to give it a prominent mention for the following among other reasons. Kali-dasa, in his Raghu-vasma, makes his salutations to Siva in the form of half man and half woman. This work also begins with a similar salutation to a deity white in the right and not white in the left. The second reason is that has been commented upon by Nicula-kavi Yogi-candra. Mallinatha

says in his commentary on the 14th verse of the Megha-duta that Nicula was a friend of Kali-dasa and that Ding-naga was his enemy. The commentator Nicula says, that he is writing the commentary because the author Kali-dasa is his friend. Another reason is that Kali-dasa in this work says that he writes the book that people may easily understand words and their meaning without much trouble, because at present without studying the Maha-bhasya and other works none can understand the meaning of words by Panini, Sakti, Candra, Surya, and Indra. The commentator says that these are the five authorities who settled the forms of words. But Kumara does not do it.

Against these reasons, there is one which will throw doubt on the authorship of kali-dasa. In the colophon of the tika. named Tarala, Nicula says, that he has been encouraged to write the commentary by king Bhoja. But he does not speak of Bhoja, as the king of Dhara, but only as Maharaja-siro-mani. There is another reason against the assumption that kali-dasa is the author of this kosa. He was certainly a Brahmanist and depended on Panini and other for the correctness of words. But in his colophon in this book he includes ksa in the Sanskrit alphabet.

Madras Catalogue. Vol. III, page 1186ff. makes mention of another dictionary or kosa by vara-ruci who was honoured by Vikramaditya. Like other Vara-ruci's dictionaries it treats only of genders. But it is in verse. The commentator who is nameless refers in the preamble to Jaimini-kosa-sutra, to the opinions of Kotyayana and Vyasa to the declarations of poets. Samkara, Ananda and others, to Dandin, Vatsyana, and Savata. The kosa and the commentary extend over 41 pages,

so the kosa must be a very short work of ninety verses in all and at the end Vara-ruci declares that what is not mentioned here is to be understood from usage. The colophon gives the name of the work as Linga-visesa-vidhi.

I draw special attention to these two works attributed by two of the nine gems of the Court of Vikramaditya, one on homonyms and the other on genders.

The late lamented R.Sarma, in para 16 of his Introduction, gives a list of twenty-three kosas after Medinikosa in Sanskrit written before the establishment of British rule in India. His descriptions are short and he says these are less frequently quoted and not regarded as authoritative. But the history of some of them is interesting and so I give his list in full and add what new historical information I could glean.

(1) Sabda-ratna-pradipa-perhaps the same as Kalyana-malla's Sabda-ratna-dipa. It was composed in 1295 A.D.

(2) Apavarga-nama-mala or panca-varga-parihara-nama-mala-author Jina-bhadra Suri, a favourite disciple of Jina-priya. His date is 12^{th} century.

(3) Sabda-ratnakara by Mahipa, the homonymous-section has a different name Nanartha-tilaka-date 1374,

(4) Bhuri-prayoga by padma-nabha-datta the founder of the Supadma School of grammar. (See grammar section of this Introduction.) The synonymous portion is short but the homonymous portion is long, date,- latter end of the 14^{th} century, place,-Mithila.

(5) Sabda-mala by Ramesvara Sarma, written on the model of No.4.

(6) Nanartha-ratna-mala of Iulpaga-dandadhinatha or Bhaskara. He was the younger brother of Raja Harihara I of Vijaya-nagara. His name does not appear, Bhaskara is the name perhaps of the pandita, who assited him in preparing this dictionary. It was composed during the latter half of the 14th century. It is curious to note that Sayana and Madhava, though they wrote on various branches of Sanskrit literature, never attempted lexicography, perhaps, because a royal prince had undertaken it. These princes, whose administrative work sat rather lightly on them, often employed their leisure in the pursuit of literature.

(7) Abhidhana-ratna by Jata-dhara. Aufrecht says, the author was earlier than Raya-mukuta. The work is modeled on Amara-kosa, but gives in many places additional information. The author's father was Raghu-pati and mother Mandodari. He belonged to the Dindi gai. He lived at Deva-kada, near Chittagong, on the pheni river, which flows from, the Candra-natha hills (1.0.1080).

(8) Anekartha-dhvani-manjri in 88 slokas. The author is Gada-simha. Who seems to be earlier than Raya-mukuta. Gada-simha wrote many books and commentaries. A fragment of his commentary on Bharavi is to be found in my ancestral collection. Raghu-nandana quotes from him during the middle of the 16th century. Gada-simha quotes Rudra, Gnaga-dhara, Dharani, and Ratna-kosa.

A dictionary of the same name by the Maha-ksapanaka of Kasmira has already been mentioned. That book contains 320 verses.

There is another work of the same name in I.O1029 and 30, which contains slokadhikara 92 verses; Ardha-Slokadhikara 69 verses; Padhikara 19 verses; and a fourth chapter containing 43 verses. Many of the verses are identical with that of Maha-ksapanaka. The author's name does not appear.

(9) Rupa-manjari-nama-mala- by Rupa-candra composed in 1588, according to Bhandarkar's Report for 1883-84 p.60.

(9a) Sighra-bodhini-nama-mala Pundarikaka-vitthala who flourished in Akbar's time.

(10) Saradiya-nama-mala by Harsa-kirti, a Jaina monk at the end of the 16th century. It has a commentary named Sruta-bodha by the author himself written in 1624.

(11) Sabdartha-ratnakara in three kandas. By Vamana-bhatta-bana. Stein says that it is probably the same work as quoted by Appaya Diksita. But R.Sarma surmises that the author flourished in the last century.

(12) Nama-samgraha-mala by Appaya Diksita. Perhaps the same author who in the beginning of the 17th century or earlier wrote works on-a variety of subjects. It has an erudite commentary showing the author's acquaintances with a large number of kosas.

(13) Nama-kosa by Sahaja-kirti in 6 kandas. It gives a number of rules for the determination of genders. In 1627 A.D. the author composed a poem in praise of the-image or Parsava-natha at Lodhra-pura.

(14) Panca-tattva-prakasa by Veni-datta composed in 1644 and lithographed in Sat-kosa-samgraha.

(15) Kalpa-dru by Kesava. R.Sarma has published this book in the Gaekwad Sanskrit Series. It is divided into three kandas i.e., main branches, each with a number of pra-kandas or minor branches. It was composed in 1660 A.D. There seems to have been other Kesavas, because Malli-natha quotes from one. This may be Kesava-svami. Kalpa-dru is the largest synonymous dictionary.

(16) Sabda-ratnavali by Mathuresa. R.Sarma thinks that this Mathuresa is identical with Mathuresa Vidya-lamkara. Who wrote a commentary on Amara entitled Sara-sundari. The identifications seems to be very doubtful. The commentator is Mathuresa Vidyalamkara but the author is simply Maturesa. The commentator wrote in the interest of Supadma Vyakarana which is not studied in East Bengal. The commentator is a Banerji in West Bengal, while the author wrote in East Bengal under the patronage of Mucca Khan Masalanda Elli, son of Isa Khan who was the chief of the Bara-bhuiyas or Twelve landlords who divided East and South Bengal among, themselves, in the beginning of the 17th century. Masaladna Elli had many brothers among whom Khan Mahammad.

Khan Abdulla and khan Yuddhananda are mentioned ID the MS.Rupa-dasa and Vallabha-rama were Masalanda's Hindu officers who encouraged the author to write the book.

(17) Kosa-kalpa-taru by Visva-natha. It is both homonymous and synonymous.

(18) Nanartha-pada-petika by Sujana (Mad, III,pp.1166-67) and Sabda-lingartha-candrika both are homonymous, one arranged according to the last

consonant and the other according to gender.(Mad.,III,p.1206) A commentator to the 2nd is entitled Drstanta-siddhaujana by the grandson of the author whose name is Vidvat-kallola-bhattacarya. The grandson of the commentator, Vidvac-cakora-bhattacarya, wrote a sub-commentary entitled Sarat (Mad., III, p.1118).

The name of the text is Sabda-sabdartha-candrika, that is, the moon-shine of words and their meanings. To enjoy the moon-shine one must have clear vision and clear vision is obtained by the use of anjana or eye-wash; that is supplied by the grandson. Moonshine is most glorious in autumn and therefore the grandson's grandson names his sub-commentary simply as Sarat or autumn. So the autumnal moonshine is seen with a clean vision by the exertions of four generations.

(19) parayaya-sabda-manjari (Mad., III.p.1174) by Vidya Hamvira-misra is a synonymous dictionary. The author calls himself Candra-cudavatara,-an incarnation of the moon-crested Siva. It is in three gucchas or bunches. It treats of those words which are commonly used, those which are useful to men, and those that are used in the Sastras. In the first bunch it treated of cities, in the second, of men, and in the third, of the world. So the work is concerned with terrestrial world only.

Sabda-sabdartha-manjusa (Mad., III, p.1210). The catalogist says, it is by king Hamvira-misra, the colophon says kavi Hamvira-misra. It treats of synonymous and homonymous words. Its chapters are named Apavaraka, In three apavarakas it treats of gods, men, and animals.

R.Sarma thinks that the authors are identical, though one is called a poet and the other, a learned man. The king is, I believe, a mistake of the catalogist.

The work of the same name is quoted in Amarakhan danam by Sri-harsa (Mad., III, p.1113). So the work seems to be rather old.

The word manjusa means a covered basket; jewels are put generally in a manjusa. Things that are put in are called 'dhauka', so the commentary of this manjusa is 'Dhauka' (Mad., III, p.1112). It is by Murari-misra, the pupil of Mani-misra.

(20) Prayay-ratna-mala bya Mahesvara (Mad., III, 1177) in three paricchedas treating celestial, terrestrial, and nether objets respectively. It generally treats of sentient beings. The author was a worshipper of Mahesvara.

(21) Parayaya-sabda-ratnam by Dhanjaya Bhattacarya in three sergas treating of upper, middle, and lower regions. The catalogist says, that the author refers in his introduction to Sabendu-sekhara. This is not the Sabendu-sekhara by Nagesa-bhatta, because the author is described as Sabdendu-krti-pravilasa mana-kirtih' that is a man whose fame has spread abroad by the work entitled Sabdendu-sekhara.

(22)Visva-medini by Sarasvata-misra. (Mad.,III,p. 1192.) Medini-kosa is merely homonymous, so to differentiate the present work from Medini-kosa it is called Visva-medini. It is in three kandas, homonymous, synonymous, and indeclinables. It treats of genders in another of his works named Hema-medini arranged in alphabetical order.

It has a commentary named Sumanah-kanta (Mad., III,p.1193-94) by Vacas-pati-misra, the author's grandson. The grandson says that his grandfather was gutika-siddha like many famous authors, and gave him the name Vacas-pati-misra.

(23)Visva-nighantu- or Visva-kosa by Visva-kavi (Mad.,III,p.1189). It is a homonymous dictionary, in which the words with many meanings are given in the 1st case-ending and the different meanings in the 7th case-ending.

These twenty-three works are given in the same order as in R.Sarma's introduction to the kalpa-dru-kosa. But there are other modern kosas, too. One of them is Sruta-sabdartha-nighantu or Sruti by Somesvara, the pupil of Yogesvara. It is in sixteen Vargas. The author says that Nighantu, Jna-kosa and others are well known. In this kosa is given what is not said or badly said in them and explained what is said in them. It treats of the Vedic words, their names, their genders, and their meanings. 1.0.1035 gives the numbers of each of the sixteen Vargas. The Vargas are generally named after the first word. The Vargas from 8 to 15 are kadi, Cadi, Padi, Tadi, Adbhuta, Yadi, and Sadi. The author says that he has studied both the mantras and tantras and collected words which have a definite meaning there.

Parayarnava (Mad.,III,p.1181) by Nila-kantha is a collection of synonymous in five tarangas. The author says, that whatever, Dhanvantari, Marici, Atri, and others have said in the matter of terrestrial research will be denoted in this work. The five tarangas are (1) Nivandhana-taranga, (2) Patra-

phala-vrksa-prasma, (3) Puspa-daru-vrksaka-samara-lata-gulma-sasya-vises-parisilana-vicara, (4) Deva-tiryag-jantu-vicara, (5) Manusuadi-Vicara.

Kriya-nighantu is a dictionary of verbs by Bhattoji Diksita conjugated in the third person, singular, present tense, (Mad.III, page 1115).

Sarasvatabhidhana, a small vocabulary of 32 slokas is attributed to Sarasvati herself. This is to be kept a secret by all poets and not to be communicated to others just as one's wife. It has a synonymous portion in verses, and a homonymous portion of twenty-three words.Rajendralala Mitra notices two MSS. of this work one containing 11 slokas and the other 47 slokas (L.385 and 1122).

Nanartha-ratna is by Sri-natha who consulted many kosas and many panditas with the object of making the work useful to young men. The word is generally given in the prathama, and its various meanings in the saptami. The gender is to be known from the declension. The words are given in the order of consonants at the end. (Our Gatal.4724.)

Kriya-kosa is by Rama-candra, son of Visva-natha and a disciple of Krsna Pandita. It gives the meanings of roots which are classified according to their import,- apparently a very modern work. Aufrecht in his Catal.III, mentions Kriya-kosa as an abridgment of Bhatta-malla's Akhyata-candrika by Rama-Candra, son of Visva-natha.

The author at the end of his book says, though Bhatta-malla has written a book on this subject, he is writing this abridgment for the comprehension of young men giving those verbs only which have extensive currency.

The oldest work of this class is said to be Dvi-rupa–kosa by Sri-harsa, the author of Naisadha-carita. The colophon gives the same account of Sri-harsa as in that work. But in this work, he says of himself, as Naisadha-maha-kavyojjvala-kirtina. It is not only a Dvi-rupa-kosa, but a Tri-rupa-kosa. Catu-rupa-kosa, and panca-rupa-kosa, The forms of words differ sometimes in matra (quantity), sometimes in letters, sometimes in vibhakti (declension) and sometimes in rudhi or usage. (Printed in Grantha-pradarsant.)

Sabda-bheda-prakasa is by Bhattoji Diksita. The causes of different forms, in this work, are given a little differently from these of Sri-harsa. It says, that the difference is some times from matra. Sometimes from Letters, sometimes from difference of meaning, and sometimes from rudhi or usage. (Mad.,III, page1205).

Visesamrta, sometimes called by mistake Visamrta, is by Trymvaka-misra. It gives the alternative forms ol words. The author says, that he was proficient in 32 bhasas from which varieties of words were formed. (Mad.,III,p.1195.) Sarasvati-vilasa is by Svarita-vallabha Bhattacarya, born in the family of Samkara-misra. It is divided into three chapters. (1) Antyadi-ramyam (2) Dirghadi-vicitram (3) Ganita-ganitadi-kathanam (Mad.,III,p.1120).

Vaibhasika-kosa by Krsna-kavi, son of king Laksmana and Mallika. The work was written in. kali-yuga era 4869, that is, 1768 A.D. the commentary, by the author, in kali-yuga era 4882, that is, 1781 A.D.It deals with alternative forms of words (Mad.,III,p.1200).

Another work on Dvi-rupa-kosa is by Purusottama-deva. (LO.1037 and 1038.) Sabda-bheda-prakasa is also attributed to the same author; but Eggeling says, "It agrees pretty closely with the first part of the first supplement of Mahesvara's Visva-prakasa.

These works are so similar to each other that it is very difficult to distinguish one from the other and so there is confusion about the authorship in many of them. A. good instance of this has been given by Eggeling in 1037 of his Catalogue.

Dvi-rupa-dhvani-samgraha is a vocabulary of words of different spellings by Bharata Mallika, (I.O.1041).

Verna-desana (I.O.1039) is by Purusottama-deva. In the preamble the author says, this work is written for regulating the spelling and it is to be regarded as a command of the king.

The Sanskrit alphabet is purely phonetic but with the advance of the Aryans towards the east and the admission of many non-Aryan tribes into the Aryan Society, the purely phonetic character of the alphabet changed and the change is nowhere more marked than in Eastern India, especially in Bengal. In Bengal ja ¼;½ and ya ¼?k½ are similarly pronounced, ba ¼c½ and va ¼o½ are similarly pronounced. No distinction is made between the cerebral and dental na. The three sibilants have the same pronunciation. This is true so far as the sound reaches the ear. The form of letters in different provinces, specially in the east, also creates confusion; kha and ksa are often confused in writing, sometimes sa is written for both. Gha and ha, are often confused, da and nda are

scarcely distinguishable. Purusottama writes his Varna-desana to prevent all these confusion and to regulate the spelling according to the old phonetic alphabet. Mahesvara in the appendix to his Visva-prakasa, entitled Sabda-bheda-praksa, made an attempt to regulate spelling in the same direction. But purusottama seems to have taken up the work in earnest. Besides his Varna-desana, he has written Ekaksara-kosa, 4731-VI. Sakara-nirnaya 4728-III, is a spelling book designed to point out, what words have the letter sa. What words sa and what words sa and what words sa; what words have na and what words have ja; and from this it appears that Purusottama was a Bengali.

Verna-prakasa is by Karna-pura written for the use of Raja-dhara, son of Amara-manikya of Tripura. King from the Moon. (See Introduction to the Raja-mala) The object of the book was correct writing. The author consulted puranas, punnings Yamakas, 19 kosas, many works on dhatu-vrtti, and unadi. It treats of the difference Mewar in the 14^{th} century. Mohammedan "words are often met with in this work, and the commentaries all belong to the 17^{th} century. The most noted name amongst the commentators is Visva-natha Tarka-pancanana, the writer of three of the most difficult, abstruse, and erudite works on modern Nyaya. How he came to write a commentary on Prakrta-pingala is a wonder. Vamsi- dhara's commentary was written at Benares in 1621. His father, krsna-deva, encouraged and helped him in his work. Yadavendra, who has the titles of Budha-rajendra, Dasavadhana, and Bhattacarya-wrote a commentary on the prakrta-pingala with the object that no teacher's assistance would be necessary. There is another commentary by krsna. A fifth commentary by Sri-harsa Sarma,

son of Pandita Makara-dhvaja, is mentioned in No.9 of the Chandah section of the Calcutta Sanskrit College Catalogue.

Pingala-prakrta-sutra with a commentary by Bhatta Laksmi-simha was composed in 1657 Samvat equal to 1600 A.D. The commentator says, that. Valmiki is the earliest poet in Sanskrit, Sali-vahana in prakrta and Pinagala. Which is another name of Sesa-naga in bhasa, (This is perhaps' the reason why in Rajputana, the bards write in two distinct languages* Dingala and Pingala. Maru-bhasa in Dingala, and Vraja-bhasa is Pingala.) Sesa-naga wanted to know how much of his hood was covered by the earth and so he came to earth in the guise of a brahmana. But Garuda, his enemy, knowing his disguise swooped upon him from a great distance. The brahmana said to Garuda, "you see my skill in poetry, what I write in one place I do not write in another". So saying he went on composing poetry till he came to the end of the land and jumped into the sea and thus escaped the vengeance of Garuda (Mad.,III,p.1226).

{Extract from Preface to A Descriptive Catalogue of The Sanskrit Manuscripts in the Collections of The Asiatic Society of Bengal.}

3) APROPOS OF SOME MANUSCRIPTS ON TANRA

1. Special Features of the Works :-

The question of the date and authoritativeness of what passes as an original tantra is a difficult one. It is evident that some of them are very late commanding little authority even among the followers of the Tantras. But the actual dates of few of the works can be determined. The position with regard to the digests is of course better, though not always satisfactory. A number of these works are dated while the dates of a few can be ascertained with some amount of certainly from internal or external evidence. A list of the works in which the dates of composition are definitely mentioned is given below.[1]

6351-2.	Kramottama	1435 S.E.
6233.	Mantraradhana-dipika	1488 S.E.
6199.	Saktakrama	1493 S.E.
6533.	Puras carana-dipika	1512 S.E.
6659.	Syamakalpa-latika	1514 S.E.
6694.	Anandalahari-tika	1527 S.E.
6183.	Saradatilaka-tika	1695 V.S.
6214.	Agama-tattva-vilasa	1609 S.E.
6604.	Sara-Samuccaya	1770 V.S.
6511.	Dipa-prakasa	1677 S.E.
6303.	Syamasaparya-vidhi	1699 S.E.
6228.	Dharma-vitana	1779 V.S.
6439-41.	Kaulikarcana-dipika	1700 S.E.
6573.	Mudra-praksa	1752 S.E.
6215.	Agama-tattva-samgraha	4933 Kali Era.

6661. Syamasantosana-stotra 1756 S.E.

6647. Kaula-gaja-mardana 1910 V.S.

6617. Goraksa-sataka-tika 1943 V.S.

(ii) Nature of contents of the works:- The works described are mainly of are mainly of a ritualistic character. There are few works here which directly expound the philosophy proper of the Tantras. The following pages, however, contain enough material that will be of interest to students of anthropology, iconography[2] and Sanskrit literature, particularly the later phases of it. It must still have to be admitted that this is volume like the volume on Smrti and Purana contains much that is of little value and importance.

It will be noticed that works on the details of the worship of different aspects of Sakti or the Divine Mother by far outnumber those on all the other deities taken together. Of the ten major manifestations (mahavidya)[3] of the Divine Mother, again, Tripura, Kali, Tara and Bhuvanesvari claim in a descending order the largest number of worshippers and consequently the largest amount of literature. Chhinnamasta (also known as Pracanda-candika or Sumukht), Dhumavati and Vagala are principally worshipped in connection with the performance of the black rites for the attainment of ulterior objects. They have few regular worshippers who regard them as their-tutelary deities, so that the literature on them is quite scanty. Sakta deities like Gayatri, Kubijika and Candika have only a limited local interest, being known and worshipped in particular localities. Among the other deities Siva with his different aspects comes next as regards the quantity of literature dealt with in the volume. The literature on Visnu is poorly represented here while a

comparatively small amount of literature appears to have ever been produced on the cults of Ganesa and Surya (Sun), evidently owing to the small number of devotees worshipping them as tutelary deities.

Of the various tantric rites only the more important and popular ones are found to have been treated in independent works described here. The six black rites[4] and other magic rites for warding off evils and securing prosperity, of course, claim a large number of works, mainly small treatises and manuals. But few of them command respect and authority even among orthodox scholars of Tantras being generally spurious, anonymous and comparatively modern.

Though this is not the place to give an elaborate account of the various rituals of the Tantras with which the works under discussion are primarily concerned, it is necessary to give a rough and general idea of their characteristic features in order to enable the general reader to appreciate the nature of the contents of the works. A more detailed account of them is given in Arthur Avalon's Principles of Tantras (London, 1914, 1916, vols.I and II).

Diksa or initiation which is the most essential preliminary of the Tantra form of worship invests one with the right to follow the injunctions of the Tantras. And every Hindu, irrespective of any caste sex to which he or she belongs, may be and until very recently was initiated with proper ceremonies by the family preceptor or some of his superior near relatives into the worship of a particular deity. At the time of initiation one of the many mantras with which a deity is worshiped by different persons on different occasions is communicated to the worshipper who is to keep it concealed like the most valued treasure. The mantra and the deity,

appropriate for the worshipper, are determined by family practices as well as personal peculiarities of the worshipper, who is to mutter the mantra and perform other rites with it not only at the time of worship but also on the occasion of observing his daily duties like getting up from bed in the morning and bathing. Though the form of worship[5] is essentially the same in connection with all the deities there are differences and peculiarities in the details of procedure which are pointed out in special treatises dealing with particular deities. The use of the 'Five M's-madya (wine), mamsa (meat), matsya (fish), mudra (fried grain) and maithuna (sexual intercourse) – and the six black rites are not meant for all worshipper but for only the select few. Even all members of the kaula sect of the Saktas-a sect notorious for these rites-were not to observe these rites (I.H.Q.-X. 487f.).

The mantras[6] consist of one or more syllables indicated by word symbols which differ in different schools and which are explained in special dictionaries (6257-6265). They are known as mala-mamtras, when the number of syllables contained in them is more than twenty. Various rites are prescribed for making the mantras efficacious. Of these a very important one is the puras-carana (6530ff.) which consists of five elements, e.g., the muttering of the mantra for a prescribed number of times, homa, tarpana and abhiseka with the same mantra followed by the feeding of Brahmins.

When a worshipper has attained to sufficient spiritual development he may undergo superior types of initiation culminating into Purnabhiseka (6526),

The worship is offered on an image of the deity, on a consecrated pitcher filled with water on which fruits and mango-sprouts are placed, or on a mystic diagram (yantra) which represents the deity.

While an image is immensely popular in Bengal, the diagram is more popular elsewhere (6579ff.)

Some important works

A brief passing reference may now be made to the characteristic features of a selected number of the more important but little-known works, mss. of which are described in the following pages. There area good a number of works which are unique and are noticed here for the first time. The names of these have generally been marked with an asterisk in the index of titles. But even under titles without any mark there are not a few works which though already noticed are either inaccessible elsewhere or are still unique other notices referring to mss. described in the following pages. But in a manuscript collection it is not only the mss. of hitherto-unknown works that are important and useful. It is not infrequently that mss. of well-known works are immensely useful for the determination of the correct text of a particular work. Tantra works again, especially the originally tantras. Possess immense textual irregularities and variations. It will be noticed that even the number and arrangement of the chapters of a work differ in different mss., a comparative analysis of several of which is therefore essential for a critical edition.

Some of the mss. present different versions of even number of a later digests and commentaries. Of these mention may be made of the following:-

6232. Mantra-candrika, of Janardan.

The mss. of the society contains an elated version of the work of which a shorter version is described in L.II.911.

6352. Kramottama of Nijatmanandanatha. This seems to represent an abridge version of the works as contained in no.6351.

6438. Kaulavati of Jnanananda.

This constitutes a shorter version of the work of the same name published in the Tantrik Texts Series (Vol.XIV)[7] An idea of the relation between the two versions may be had from the following statements :-

Numbers of chapters In the ms.	Corresponding portions in the education of the Tantrik Texts Series.
I	II.50-11.104.
II	III.105-V.
III	VI.-VIII.38.
IV	VIII.39-IX, 41+first few lines of Chapter IV.
V	IX.71-X.141.
VI	XI.
VII	XII.1-131+last few lines of Chapter XIII.
VIII	XIV.
IX	XV.

6595. Hatha-pradipika.

This seems to contain a smaller version of the work as known through different editions.

6817. Malladarsa of Premanidi Pantha.

This may be shorter version of the work described under no. 5971 where no name of the author is traceable.

Besides the above-mentioned works, the following works and mss. in the different sections of the Catalogue deserve special mention.

A. Original Tantras.

(1) General.

The Vira-tantra (5925-7) which deals with the worship of kali, Tara and other deities, specially in connection with left-handed worship, has a very unsatisfactory text. The first four chapters agree in all the three mss Chapters 5-10 in 5925 agree with chapters 5-11 in 5927, The last four chapters in 5927, however, have no corresponding matters in any of the other two mss., the concluding chapters of which agree but for the chapter numbers.[8] it is not known if this is the work referred to by Raghunandana in his Smrti-tattva.

A reference may be made here to a work called the Brhad-rudra-yamala (5866-7) which has little connection with the Rudra-yamala. The Society seems to possess all the known mss. of the work-three in number[9]-two of which, both incomplete, are described here and the remaining one, which is complete belongs to the old collection of the Society. The work is in the form of an interlocution between Krsna and Narada. It deals with the worship of various deities like Ganes’a. kali and Pancanana, the popular Guardian Deity of children.

The only so far known expounding the doctrines and practices of the little-known but catholic Parananda school of Tantric worship, which puts a taboo on ritualistic details as also on animal sacrifice, apparently an essential features of Sakti worship, appears to be the Parananda-sutra published in the Gaekwad's Oriental Series, The present collection possess a fragmentary manuscript of another small work on the subject, called Parananda-mata or Paramananda-mata-samgraha (5982). It gives a brief but clear and systematic account of the views of the school. This is a metrical work, with a few prose-lines here and there, containing about a hundred verses. Some of the verses, which are apparently borrowed by the both from an earlier source, are found in the printed text also. The language in both the works is occasionally almost identical. The fragment has been published in JRASBL.(1939, pp. 467-7), with a short summary of the contents in English.

The Akasabhairavakalpa belonging to the Mahasiava-tantra appears to be a big work of which a portion, complete in itself, dealing with various magic rites is preserved in a Ma. Of the Society (5895). Another portion, a considerably bigger one, belongs to the Tanjore Library of which a modern copy is in the Bhandarkar Oriental Research Institute. This portion deals with the details of the worship of Samrajya-laksmi (Presiding Deity of Sovereignty) and with Raja-dharma (royal duties). A detailed description, containing a list of contents, of the last-mentioned manuscript is given in the Karnataka Historical Review (1939, pp. 7-18) by Mr. P.K.Gode who believes that the work is

associated with the state of Vijayanagara, a picture of which, Mr.Gode thinks, is reflected in the work.

The Radha-tantra (6002-3) is an interesting work which seeks to demonstrate the supremacy of Sakti worship through the life and achievements of Krsna, who is represented as an ardent worshipper of Divine Mother. It is definitely stated devotion to Sakti was at the root of all the superhuman achievements of Krsna (ch.22) Krsna performed various Kaula rites in the company of Radha, an incarnation of Padmini who was an attendant of Tripura (ch.6) Vrndavana was the proper place for the ritualistic practices of Krsna, as the Divine Mother always resided here and the two principle trees of the place, e.g., tamala and Kadamba, were nothing but different forms of kali and Tripura (ch.21). The work, however, seems to be a comparatively late one. Though no definite date can be assigned to it, one limit of its age is supplied by the Syamasaparya-vidhi (6303) of Kasinatha composed in 1699 S.E. (or 1777A.D.), which refers to the Radha-tantra as one of the source books utilized by it. That the work was regarded as authoritative is testified to by the large number of manuscripts and printed editions that the work possess as well as by references made to it in later digests like the Sakti-ratnakara (6216) of Rajakisora of unknown date and the Syamasaparya-vidhi already referred to. The existence of a work called Brhad-Radhatantra Cat.Cat.,I.504) may not unlikely be an indirect evidence of the popularity of the work which led to as longer version (Bmat) of it. The work may have originated or at least was more popular in Bengal.

Manuscripts of it are mostly known to be in Bengali characters and all the known editions are published in Bengal and in the Bengali script.[10]

The Society possess only one Ms. of the Mahanirvana-tantra (6039) which has been published several times by different scholars.[11]But curiously enough the number of known mss.of the work is quite disproportionate and very small. Only two mss.are noticed in the Catalogus Catalogorum (I. 298 under Nirvana-tantra). It does not seem to have occupied an important place in the literature of the Tantras. The work is not mentioned in the well-known lists of the Tantras, e.g., the Todala-tantra list and the Vamakesvara-tantra list. Scarcely does any of the famous Tantric compilations refer to or quote from this work. Of the few works which contain references to the Mahanirvana mention may be made of the Krmadiksa of Jagannatha (6525)[12] and the Sarvollasa-tantra (6204) of Sarvananda.[13]

It seems that it was owning to these facts that the work was suspected in some quarters to be a fabrication in whole or in part of Hariharananda, the guru of the celebrated Hindu ‘reformer’ Raja Ram Mohun Roy, ‘written with the object of pushing the Reformist views’ of the latter. It may be pointed out in this connection that the work ‘was first published by the Adi Brahma Samaj under the editorship of Ananda Chandra Vedantavagisha’. ‘The preface to this edition stated that three mss.were consulted; one belonging to the library of the Samaj, the second supplied by Durgadas Chaudhuri, and the third taken from the library of Raja Ram Mohun Roy.[14]

(2) Works on Different Deities.

We have here a number of works pertaining to the cult of Durga. The Maya-tantra (5985), which may or may not be identical with the wok of the same name quoted in the Tantra-sara, the Sakti-ratnakara and the Agama-tattva-vilasa, prescribes (ch.8 and 9) and speaks highly of (ch.12), Kulcara in connection with the worship of Durga with the details of which it deals. As some of the mss.end with chapter7 the genuineness of these chapters may not be beyond all doubts. Two works assigned to the Rudra-yamala (5879, 5885) with the worship of the deity during the famous autumnal festivals of Northern India known as Navaratri as as with the nine well-known forms of the deity. The Vanadurga-kalpa (6067) describes the details of the worship of Vanadurga, a deity whose worship is highly popular in several districts of Bengal.[15] There is, however, no work here which describes all the rites to be performed by the regular worshipper of the deity, of which there is a good number in Bengal.

Works on deities whose rituals are dealt with both in original Tantras and Digests have been noticed, for the sake of convenience, only under Digests.

(3) Works on Caitanya.

A number of a apparently late but nevertheless interesting works refer to or deal with the worship of the great Vaisnava saint of Bengal –Caitanya. These are associated with well-known Tantric texts. In one of them, associated with the kuarnava (5913), the divinity of Caitanya is established with various arguments. In another, associated with the Visvasara-tantra (6038), which professes to give an account of this ‘secret’ incarnation of Visnu, the date of his appearance is also

indicated (4586 of. the kali age). In the Urdhavamnaya-samhita (5959) he is referred to as an avatara in place of the Buddha. It is significant that the last ms.is in the Nagari script and presumably is of a non-Bengali origin. Of other works of the type reference may be made to the sections on Caitanya ascribed to the Brahma-yamala and the Krsna-yamala, manuscripts of which are found in the old collections of the Society (AS., p.64) and the Bangiya Sahitya Parisad(BSP.,p.41).

(4) Works on Alchemy.

Among manuscripts of works on alchemy reference may be made to the following:-

Rasanava (5870) and Rasa-kalpa (5871) associated with the Rudra-yamala deal with various preparations of mercury. The suvarnatantra (6101) and Svamatantra (6824) describes the synthetic preparation of valuable metals like silver and gold.

(5) Works on the use of hemp.

We have here a small manuscripts (6068) containing extract on the Tantric use of hemp. The topic has been incidentally dealt with in a number of Tantra works. The Mahanirvanatantra (V.82-87) gives directions for the ritualistic purification of hemp. One entire chapter of the Sarvollasatantra (6204, ch.30) deals with its use and efficacy. Five names of hemp are given.[16] Hymns to deified hemp are described in ASB., VII.5574, 5655. The use of the drug in a number of folk-rites is also known.

(6) Works relating to the science of warfare.

A reference may be made to manuscripts of more or less familiar astrological and magical works connected with the science of warfare in old India. These works are generally associated with the Tantras. Some of them like Narapatijayacarya (with sections bearing the stamp of the Tantric form of the composition), a ms. closely agreeing with which has been based on the tantras, mala(5892), are definitely stated to have been based on the tantras, especially of the Yamala class, while one, Yuddhajayarnavatantra, (6109-12) at least is actually styled a tantra. They deal with what is called svarodayasastra or the science of sounds, a lack of the knowledge of which brings about the fall of a king, even though rich in armaments. Incidentally, they describe mystic diagrams to determine the future of royal undertakings, lay down the details of magical and Tantric rites such as initiation into warfare, consecration of the weapons to make them infallible, six black rites of the Tantras for controlling and causing the destruction of enemies.

B. Digests.

(1) General works.

Under this reference may first of all be made to several commentaries.

Uncertainty seems to surround the names of the authors of two commentaries of the Prapanca-sara (6174-5). Different mss.refer to different names while some of the mss.give no name at all. Even the name of the preceptor of one of the commentators (6175) is not known for certain. While it is given as Vaikunthavani or Amarara Jasarsvati in the introductory verses, it is

definitely referred to in the last colophon as Umaraprakasa. The society possess mss.of two commentaries (6182-3) on the Sarada-tilaka which do not seem to have so far been noticed. One of these (6183) was composed in 1675 V.S. or 1618 A.D.

The chief interest of the Vidyarnava (6206) lies in the account it gives of the foundation of the town of Vijayanagara. The account, which does not appear to have so far been recorded in any of the several modern works on Vijayanagara, does not, unlike other legendary accounts , refer to Harihara Bukka and Vidyaranya whose names are almost invariably associated with the foundation and the naming of the town. It does not constitute a version of the legends already recorded but gives a new and independent story by itself. In giving the history of the composition of the work it is stated that it was composed at the request of an unnamed king[17] of Vijayanagra, the posthumous son of Praudhadeva. The author appears to have been a man of influence. For it is told that when Praudhadeva died[18] leaving his queen with child it was it was the author of the present work who acted as regent in pursuance of the wishes of the people. As regent he is stated to have built the beautiful town of Vidyanagara (Vijaynagara) resembling the mystic Sri-cakra. When the son of Praudhadeva attained majority and was fit for carrying on the duties of a king he was placed on the throne. And at the request of the king and learned men of eminence the work was composed.

According to prof. Salatore the foregoing version of the story about the origin of Vijayanagara has no historical value. The Vidyarnava, prof. Salatore

rightly observes, can in no way be assigned to a date earlier than A.D. 1446, the year of the death of Praudhadeva, whose posthumous son could come to the throne only after that year[19], when the town had already been in existence for a large number of years, having been constructed in 1368.

Besides referring to the history of the origin of Vijaynagara the work under review traces the line of teachers of the school of Samkaracarya, beginning from the great master and ending with the present author who claims to have directly belonged to the school. A similar list is also found in the Kramottama (6351-2). It is to be noted that both the lists contain names otherwise unknown.

The Mantra-kamalakara (6238) is a little-known work of the celebrated Kamalakara Bhatta, author of the Nirnaya-sindhu, son of Ramakrsna, grandson of Narayana and great-grandson of Ramesvara. The work is stated to have been compiled for the benefit of the author's son, Ananta. The section on the worship of Rama belongs to Ramakrsna, father of Kamalakara. Another manuscript of the work referred to in A catalogue of Sanskrit Manuscripts in the Private Libraries of North-Western Provinces (Allahabad, 1877-86) and mentioned by Aufrecht (Cat.Cat., I.429) is scarcely accessible at the present moment.[20]

The Mantra-mukutavali (6239) of Purna-prakasa, of which, the Society possess a manuscript complete in 25 chapters, appears to be one of Tantric digests. The ms.of the Society was copied in 1480 V.S.(=1424 A.D.).The work is stated to have been based principally on the Prapanca-sara. It appears from the

extremely corrupt and obscure introductory and concluding verses that the author, an ascetic, was a follower of the school of Samkara.

The Society's collection of manuscripts of the Tantra-sara of Krsnananda is specially interesting. It is a sixteenth century work on Tantra rituals very popular in Bengal. But the Society's manuscripts of the work are almost all in non-Bengali scripts. Two more or less complete manuscripts (6187-8) are in the Newari script. There are also three manuscripts in the Nagari (6190-1, 6576) and one in the Bengali script (6577) containing only extracts. Portions of the work are found in a mutilated form, with occasional omissions intervening, in two manuscripts, one (6266) in Nagari and the other in Newari (6267), as also in a Bengali manuscript (6189) where the order of the topics is different from that in the editions of the Tantra-sara. It is not known if the last three manuscripts as also one described under No.6402 belong to works based on the work of Krsnanananda like Ramananada's Samagraha, of which there is a manuscript in the Society (II.A.48), complete in ten chapters. It is also possible that the Tantra-sara, along with other works, borrowed from the same source which, or rather fragments of which, can be traced in these manuscripts as well as in works like the Syama-rahasya, sections of which (e.g., Sava-sadhana) closely agree with similar sections of the Tantra-sara.

Atma-rahasya (6201-2), Agama-tattva-samgraha (6215), Tantra-siddhanta-kaumudi (6222) and Cidananda-mandakini (6229) give exposition of some aspects of the philosophy of the Tantras-

(2) Works on different deities.

(a) Kali- The Kali-Tattva (6306-7) is an important work, the more so if its author Raghavabhatta be identical with the famous commentator of the same name who commented on the Saradha-tilaka. The way in which the commentary is referred to in the former work (fol.6A of 6307) would naturally make one inclined to suggest the identification. It quotes from and refers to a number of original Tantra works. No Tantra digest is found to have been referred to though many of them are stated to have been consulted for the preparation of the work. Though several mss.of the Kali-tattva were already reported, all that was known of the work was through a short notice by R.L.Mitra (Bik, p.586). The present volume gives a detailed description of the work ands its contents.

Tara-The Matsya-sukta (5997), which is different from a Puranic work of the same name, is referred to in many a Tantric compilation of Bengal. The work or at least the portion preserved in the ms. of the Society deals with the details of the worship of Tara. A work called the Brhanmatsya-sukta is referred to in the Matra-ratnakara (6192) and the Arcana-Samgraha (6212).

It may be noted no ms.of the Tara-rahasya which is a popular work in Bengal is found here. The Tara-pradipa (63322-3) is an interesting work, as it is attributed to Laksmana Desika who may be identical with the author of the famous Saradha-tilaka. It may be that this work as well as the Kali-tattva of Raghavabhatta were intended to supplement the Sarada-tilaka with which both the authors were closely associated and which does not deal with the popular deities, kali and Tara. It is curious that all the mss. that have been reported of the

Tara-pradipa are in the Bengali script except the one in Bikaner. The popularity of the work thus appears to have been restricted to Bengal where Tantric digests like the Tantra-sara and the Syama-rahasya refer to and quote from a work of the same name. but the work seems to be little-known in these days in Bengal or elsewhere. Scholars like Arthur Avalon were not aware of the existence of this work or of any other work of Laksmana except the sarada-tilaka though a number of them are referred to (Cat.Cat., I. 536).

(c) Siva- The cult of Pancanana, Pancananda or Pacu Thakur. Presumably a popular aspect of Siva, is immensely popular among the women-folk of West Bengal, specially of the lower class, who worship the deity, as the Guardian Deity of children, for the protection and welfare of their young ones. The known literature on the cult, unlike other folk-cults, is, however extremely meager. The Society, fortunately, is in possession of three mss.-perhaps all that are known- of a Tantric text called the Brhadrudra-yamala (5866-7) sections of which deal exclusive with this cult. These sections in the manner of mangala-kavyas of mediaeval Bengal, one of which may not unlikely have been the basis of the Sanskrit version given here, record legends concerning the powers of the deity in causing destruction when offended and bringing prosperity when propitiated. The mss. are specially interesting in view of the fact that Sanskrit works pertaining to folk-cults are rare, if not totally unknown.[21]

Of later digests on the cult, of Siva the Vatukarcana-samgraha (6466) of Balambhatta appears to be the most comprehensive, while the fragment of the Bhairavarca-parjata is interesting being associated with the name of royal author,

Jaitrasimha of the Vaghela dynasty. Balambhatta has referred to a number of digests and authors (p.629). Kasinatha, the polymath, has got the largest number of works in this section. Of the ten works of Kasinatha that we have in this section, as many as five seek to demonstrate the greatness and supremacy of the deity.

We have little information about a number of authors whose works are included in this section: e.g, Siddhesvara (6462), Laksmidhara (6463), Ganga-sutra (6464), Dhanraja, son of Kesava (6465) and Rama-candra whose work seems to be based on a similar work by Krsnabhatta (6467).

(d) Ganesa- The cult of Ganesa is dealt with in three original Tantra works- Marjari-tantra (5877). Kumara-samhita (6056) by a Vinayaka-samhita (6088), which speak of the black rites to be performed with the aid of this deity.

The only work of known authorship in the section of digests on this cult is the Mahaganapati-karma or Ganesotsava (6505) by a disciple of Citprakasa. Anantadeva by name, who is stated to have belonged to the Daideva school and hailed from Matrpura.

(e) Sun- The worship of the sun-god is treated of in the concluding chapters (ch.31-35) of the Devirahasya-tantra, stated to be a part of the Rudra-yamala. These chapters or some of them, are contained in two mss.(5880, 5888, 6001).

There are a few later compilations on the cult of this deity. We have here a fragment of one, called the Trabhaskara (6575). It is gathered from the ms. of the work belonging to the Sanskrit College of Calcutta (which was partially examined) that it deals with the details of the worship of the deity (e.g.V³ªiwtk-fol.47A,

vkoj.kiwtk- 54A.mipkjfu.kZ;- 59B,v?;Znku-73B, gksefof/k-129A). Reference is made in it among others to Tantra-kaumudi (18A).Prapanncasara-samgraha, of Givanendra (32B). Mantra-maho-dadhi (343), Mantra-deva-prakasika (39A), a hymn by the author (mamakinastava-58A) and the prayoga section of the work (37A).

(3) Works on yoga-

The number of unique works in the section of Yoga is proportionately larger in comparison with that in other sections. No other mss.appear to be known of works described under Nos.6116-9, 6599, 6600, 6603, 6605, 6619, 6621, and 6622. But none of these works appears to be old.of these, the date of comparison of the Sara-samuccaya (6604) is given as 1770V.S.(1714A.D.) A work of this name is referred to in the Cakra-dipika (6622) and the Yoga-kalpa-latika (6603) of Krs nadeva, a name identical with the name of the father of the author of the work of which the Sarasamuccaya of the society is stated to be a summary. The only known ms.of the Yukta-bhava-deva, of which the Sara-samuccaya is an abridgement, belongs to the Bangiya Sahitya Parishad. A comparison of the mss. of the two works reveals that the abridgement very closely follows the original. The former has one complete colophon at the end where the number of the chapter is not indicated, while the end of the first chapter is marked on fol.18A, The latter has two chapter colophons (I,fol.29A,III,fol.60A).The latter portion of the Society's ms.[22] (fol.38B-67B) has no corresponding portion in the ms.of the Parisad, which seems to be incomplete.

C. Stotras.

Sanskrit possesses a vast literature on stotras. An idea of the extent of this literature may be formed from the fact that descriptions of mss.of stotras cover three big volumes (Nos.17-19) of the Descriptive Catalogue of Sanskrit mss.belonging to the Madras Oriental Library. The Society has a fairly rich collection of stotras scattered over three volumes of its Descriptions Catalogue (vols.V, VII and VIII).

The stotras described in the present volume, however, do not all belong to the Tantras nor are they all Tantric in character. Similar remarks apply to stotra manuscripts described in other volumes which though devoted to subjects other than Tantras deal with stotras belonging to Tantras.

A limited number of the stotras are extremely popular and highly interesting both from the stand point of philosophy as well as poetry. Some of the hymns attributed to Samkaracarya in the present volume. (e.g.Bhavanyastaka p.818, manasapuja, pp.832-3, Rama-panjara and Balaska, p.851 and Gangastaka, p.861) cannot be traced in the Works of Samkaracarya (Sree Vanivilas Press, Vols.XVI-XVIII).

Reference is made below to the works chiefly of an exegetical character, belonging to the different groups of stotras deal with in the volume.

(i) Kali.

The commentaries on the well-known Karpurastotra, of which there are seven described in the following pages, are all new. Of these the commentary of Durgarama (6628-9) is dated though the verse containing the date is evidently

corrupt in both the mss., and the date cannot thus be ascertained. One commentary (6632) is attributed in the colophon to the great Samkara.

(ii) Tripura.

One of the sublimest and most important stotrea in Sanskrit is the Ananda-lahari attributed to the great Samkaracarya. Various scholars commented on the work from time to time. Of little-known or hitherto-unknown commentaries the society possesses mss.of those of Kaviraja (6697), Ramabhadra Misra, son of Visvanatha (6696) and Raghunanadana, son of Candramauli (6695). Raghunandana may not unlikely be identical with the title Nyayavagisa and Nyayalamkara, mss.of whose commentaries on the Mahimanah-stotra and the Gurupaducla-stotra have been described (VII.5600-1., VSP., p.62, HPR., I.97). Sri-krsna Tarkalamkara (6692), like Gangahari (VII), gives an interesting legend about the origin of the stotra. Srikara's disregard or denunciation of the of the Divine Mother, it is told, led to some difficulties on his part and he succeeded in overcoming them by composing the stotra. Srikrsna suspects that a number of concluding verses of the stotra are not genuine. And it is reasonable to conclude that it was apparently due to such a subscription that Govinda Tarkavagisa (6689-90) left two verses at the end without any commentary thereon.

(iii) Bhavani.

The Devinama-vilasa (6703) which is of the nature of a metrical commentary on the Bhavani-sahasranama-stotra is an interesting work. It devotes one verse on each of the thousand names of the deity in order to explain the significance of it. The chief interest of the student of history, however, centers round the

concluding verses of the chapters which generally refer to other works of the author. The names of these works, however, could not be definitley ascertained owing to the hoplessly corrupted text of the ms.

References

1. The date of composition, though indicated, is unintelligible in both the mss. (6628-9) of the commentary on the Karpurastava by Durga rama.
2. Anthropomorphic descriptions of little-known deities like Asuri (6070-1), Kalaratri (0063-4) and Tvaritarudra 464) are highly interesting in this respect.
3. kali, Tara, Sodasi (Tripura), Bhuvanesvari, Bhairavi, Chhinna-masta, Dhumavati, Vagala, Matangi and Kamala.
4. Magic rites for averting evil, subduing (a man or a woman), arresting any feeling or force, exciting enmity (between affectionate friends), overthrowing (an enemy) and causing destruction to somebody.
5. Two essential features of the worship are bhutas'uddhi and nyasa, aimed at the purification of the body and helping the gradual realization of the supreme ideal of the Tantra form of worship, viz.the identity of the individual soul with the Supreme soul.
6. Vedic mantras, with or without any modification, are also occasionally used.RV.III, 62.10 popularly known as the gayatri, is the commonest. Vedic mantra which with necessary modifications is used in the Tantric worship of different deities. Mss. containing the texts of the modified forms of the

mantra in connection, with the- worship of various deities are noticed in this volume (6499, 6281).

The Tantric use of the Sri-sukta (RV, I, 165) has been indicated in two mss.(6500-1) which describe how different verses of the hymn are to be used in offering various objects in the worship of Laksmi as also in rites like nyasa and puras'canana. Uses of Vedic mantras in the purification of fish, meat and wine are described in works dealing with the Kaula cult.

7. Notices of two manuscripts by MM.H.P.Shastri and pro.Kielhorn reveal that the work had other versions as well (Ind.Cult.III,p.519).
8. Chapters 10, 11 and 13 of 5925 agree respectively with chapters 5,6 and 8 of 5926 which has no colophon for chapter 7.
9. For an account of the mss.and their contents cf. D.R. Bhandarkar Volume, pp. 77-81,
10. For a detailed account of the contents of the work of Sahitya Parisat Patrika, vol. 46, pp.296-300.
11. A list of the various editions of the work is given by Arthur Avalon in the Introduction (pp.Viii-ix) to his edition of it published in the Tantric Texts Series (Vol.13).
12. Some of the references have been identified, e.g., /kkrq izfrxzga fuUnke~ (Vol. 18A=VIII,279), nsgY;k ukfHkek=k;ke~] izR;sdfcUnqa efreku~] olq/kkjka] izdYI;Soe~ (Vol.21A=IX, 91-93).
13. Chapters 6,58and 59.

14. Introduction and Preface to the edition and translation of the work by Arthur Avalon (Madras 1928, Calcutta 1913).

15. cf.JASB., 1930, pp.382-3.

16. lfEcnk le;k nsfo fot;k fl)jso pk

HkMªÜp ijes”kkfu i«t/kkj[;kudhfrZre~AA&&&

sarvollasa-tantra(30.22)

17. The name of the king is given as Ambadeva by Mahamahopadhaya Gopinath Kaviraj presumably on the authority of the MS. of the Vidyarnava belonging to the Benares Sanskrit College (Brahnasutra-Acyutagranthmala," Benares, Introduction, p.54).

18. For an account of the death of Praudhava and other details about the author of the work cf.Ind.Cult., VI.107-9.

19. Ind.Cult.,VI.244-5.

20. For two more little-known works of the same author, cf. Indian Culture, V.211-4.

21. For details of the MSS.and the legends cf. D.R.Bhandarkar Volume,pp.77-81.

22. The section ending in fol.38A agrees with the one ending in fol. 513A of the Parisat MS.

(Extract from preface to A Descriptive catalogue of Sanskrit Manuscripts in the collections of the Royal Asiatic Society of Bengal, Volume VIII, part II, 1940.)

4) MANUSCRIPTOLOGY

I recall with a great respect on the floor of the D.A.C.R.I. my tutelage under great historian K.JITENDRA BABU SIR, great Numesmatisian DR. D.RAJA REDDY SIR and great temple STHAPATI DR. E.SHIVA NAGI REDDY SIR of hallowed memory in going through the 11^{th} century Manuscript of the Abhijnasakutalam belonging to my collection. My homage also goes to my teacher in my own house my father late. RAMRAO PRHALADRAO BOBADE who was the first to open the horizon of Manuscriptology to me and also to late GURU DHUNDIRAJ SWAMI of Hali-Handerguli whose writings on manuscriptology guided me at different stages of study. The topic under discussion is Manuscriptology which means the preparation of Manuscripts from written texts. Clear refernces to Manuscripts by the term pustaka occurs in the Artha sastra in the 2^{nd} or 3^{rd} cent b.c. and Bana Bhatta in his Kadambari under the section Candrapidasiksa distinguished between lekhyakarman and pustakavyapara Manusriptolgy is a modern term from which two offshoots can be deciphered: one is paleography and the other is text-editing and Sanskrit literature clearly shows the both of these divisions of study were known in India from very early times.

We are more concerned here with Manuscriptology which refers to the pustakavyapara i.e. preparation of books from written texts. Texts were written in various scripts, a list of which is available in the Lalitavistara.

The old Manuscripts are written on palm-leaf and on birch-bark and Kalidasa's reference etc. confirms the use of birch-bark.[4] From the oldest times palm-leaf was the major material for composing Mss. Birch-bark was the next and papers mostly country-made began to be used from the 12th cent. Onwards The oldest palm-leaf Ms. as Known till now is the Ms.preserved in the Tokiyo Museum (600A.D). The Bower Ms.on medicine which can be placed in the 5th cent A.D.is on birch-bark and is lying with the British Museum. Manuscripts are of various sizes the smallest one having a dimension of 6 inches x 3 inches and the biggest one measuring 3 and half feet in length and 1 feet or 18 inches in breath. The most significant point to note is that the outer covers of these Mss.were in general made of wood belonging to different parts of India. Thus covers were made of Kashmir birch trees. N.Indian teak, sal, palm trees and of other endurable wood. These covers are chiseled smoothly and painted with oil or grasy substance. After drying up beautiful engravings and drawings were made with various types of dyes. The Mss. of the Buddhist works Pancaraksa or of the Prajnaparamita contained bright and attractive figures of the Goggess Tara or of Avalokitesvara I have noticed such Mss.in the Chester Betty Library, Dublin and the Bodleain Library Oxford and in the Cambridge University Library collection. I am presentaining the illustrations from the list of Sanskrit Mss. in the Catalogue of Janert and N.Poti published from Wei baden. Germany.

As regards the contents of the Mss.we have already referred to palm-leaf, birch-bark and paper Mss.While Mss came to be written in Sarada as late is the

16th cent.A.D.the evidence of Brahmi script in palm-leaf and on paper except the Horiusi Ms.has become rare.But having received royal recognition from the time of emperor Asoka almost all of whose inscriptions were laid down in Brahmi and from the non-Indian rulers and king Kaniska using the Kharosti inscriptions throughout Northern India were being written in Brahmi uptil the 11th cent.A.D. after which it was gradually replaced by the Devanagari Script. It is a matter of painstaking research as to how Brahmi was replaced by the Devanagari. The Brahmi script has some basic features which may be mentioned as oval, bowstring, fish-hook, pot and jar types with sharp angels and strokes which are easily executable in rock but are inconvenient for leaves and papers. Probably from such a situation and after the passing away of royal patronage to the scribes more convenient shapes were thought out and the Devanagari script came into use. The Lalitavistara as referred to earlier has mentioned about 64 types of scripts of which quite a lot including the Cina, Kuna, Darada, Parasada, Abhira, Turuska and many others have not survived. It is the Devanagari script which survived throughout Northern India ramified through Nandi-Nagar, Nepala-Nagar, Newar, and a few others.

Manuscripts written in those scripts contained so voluminous a form as that of 250 folio and so small a form as having only four leaves. The extent of the leaves depended on the size varying from 30inches in length and 14 inches in breadth. A folio usually contained 6-10 lines in palm-leaf Mss but in Sarada Mss the lines varied from 20 to 25. The number of words varied from 10 to 45 more or less and letters were counted on the basis of grantha i.e. 32 letters. So

one particular leaf may contain 26 granthas and might extend upto 100 granthas and 50 leaves could contain as many as 1000 granthas or more. It is a matter of great interest for scholars that these old Manuscripts contained some marks of punctuation which is considered a gift of Europe. A straight line at some interval indicated a pause. Two small straight lines indicated the completion of the discourse. A small oblique mark indicated a small breath, occasional small dots below the line indicated some error. These marks are mostly seen in the old Devanagari Mss of North India. Some nomenclatures need clarification e.g. Nandi-nagar means beautiful script. These Devanagari scripts are well-written, very clear and bright and easily readable. Expert scribes used to write these scripts. Sankha-lipi was a very cursory and elongated variety of Devanagari script with no basic alternation. The Manuscripts deposited in the Bhandars and Jain-temples have occasional markings like Jaina-Devanagara which are also specially executed and shaped Devanagara scripts. However, I have not examined these Mss. Professor Satyaranjan Banerjee has worked at length on Jaina literature.

Mm P.V.Kane has shown in the History of Dharmasastra that the gift of Manuscripts was considered a pious not by the kings and the celebities. The Hayasisia Pancarartra in important work of the Agama literature compoed in the 5th cent.A.D. records a ritual on Manuscripts which is of epoch-making importance in tracing the history of Manuscriptology. The text which goes as follows

r= laLFkki;sn~ /kheku~ iqLrdf}ra; xq:A ys[;«p fyf[kreso fnO;iÍka”kqdko`re~A

rr% iq.;kg?kks’ks.k izkjHksfYy[koa o/k%A

xq:a lEHkksT; foizkaÜp jFksu Hkzke;sr iqje~a

vFkok gfLr;kusu LdU/k;kusu ok iqu%A

forkuoLrªlaPNéa irkdk/ot”kksfHkre~A

iqLrda fof/kor~ iwT;a Hkzke;sr~ iznf{k.ke~A

iÜpkÙkq u`ifrxZPNr~ks llSU;ifjokfjr%A

states that after the composition of a Manuscript the author used to place it before the king. The king used to appoint an expert or an expert body to adjudicate on the merits of the Manuscript. On the approval of the experts the merit of the Ms. was appreciated by the king who requested the Minister to fix a date for the presentation of the work before an audience. On an auspicious day the Ms. was worshiped amidst all ceremonies decorated with incense and granlands and was sub-sequently placed on a chariot and was paraded through the streets. After the ritual the king ordered for the copying of the Ms by competent scribes for distribution Copies were afterwards sent to distant countries for publicity.

Professor Chintaharan Chakravorty has referred to a Jain work entitled Prasastisamgraha where the process of copying of Ms the qualifications and capacities of the scribes the nature of the ingredients of copying and even the ownership of Mss by learned ladies and alied topics of diverse nature have been illustrated. The work is great importance for a student of Manuscriptology.

Manuscripts furnish valuable information regarding contemporary Calender. Thus we come across Sakabda, samvat, Vikramasamvat, Guptasamvat, Saptarsi Samvatsara, Saura and candra samvatsara etc. in the colophons occurring at the end of the Mss Manuscripts also furnish valuable dates regarding contemporary social life and the political condition of the contemporary period.

5) EXPECTATIONS AND EXPEREINCES FROM TEXTUAL CRITISM TO-DAY

During this fortnight long workshop entitiled “Sanskrit manus-critps: Scripts and Graphology, we have been introduced to a vast wealth of knowledge from reputed schlolars all over India. My own knowledge on the subject is mearge, to say the least. However, I have the opportunity of saying a few words.

The study of manuscripts is exteremly necessary, indeed, essential to the study of Sanskrit at the ptersent time. Prof.B.B. Chaubey has said in his inaugural address that although in ancient time, oral tradition formed the main source of knowledge, it is evident that the written word existed, as is clear from the Vedic hymns, e.g.,Utatvah pas’yanna dadars’a vacam (RV-1/71/4). If the word is ‘seen’, it must certainly refer to the written word. A well-known song goes:

The slate is black,
The chalk is white,
The words stand out so clear and bright-clear and bright.
And now at last
We plainly see

The alphabet of liberty-

Libery.

Thus knowledge is ‘seen’ as much as it is ‘heard’.

Prof.V.N.Jha has said here that one needs to light up the three worlds with the light of speech-the knowledge of language. He has quoted the famous verse from Dandin in his keynote address:

idam andham tamah krtsnam jayeta bhuvanatrayanA

yadi s’abdahvayam iyotir asamsaram na dipyate AA

In order to acquire this knowledge, we must enter into language, and in order to do that, we must be able to read the texts. How, then do we get to the texts? Sanskrit was written in hundereds of scripts. It is only in modern times that Sanskrit was standardized into Devanagari. In the Lalitavistara, the young Sarvarthasiddha is said to be adept in 64 scripts, which include Brahmi, Kharosthi, Puskarasarin, Angalipi, Vangalipi, Magadhalipi, Dravialipi, Kiratalipi, Daradalipi, Khasyalipi, Cinalipi, Hunalipi and so on. These include not only Indian scripts such as the scripts of Puskara, Anga, Vanga, Magadha, Dravid, Kirata etc., but also extra-Indian ones such as the Dardiscript, the script of the khasas, the Chinese and Hun scripts etc. Nagesa has recognized the existence of numerous scripts which were all used to write Sanskrit: Upa yapratipattyartha upaya avyavasthita iti nyayena vyakaranabhedena sthanibhede’pi nakstih/desabhedena lipibhedavad iti dik/(PL p.57). A knowledge of as many of these scripts as possible is therefore necessary.

In the course of the workshop, we were told that several mss.of any Sanskrit text may be available. All these were copied by scribes, many of them had very little knowledge of the language as such, and were laible to various slips and errors. There is also the great porbility that interpolations were interpolated in some particular copies of the text. These interpolations may have come in through oral recitations of the text when the reciter might have added some of his own creation to the original. Since copies were made of the copies again, slips and errors and interpolations were incorporated into the later copies. As a result, many of the mss.found were further and further away from the original. So, in order to prepare an anthoritative text, one needs to take all these factors into consideration.

In later times, copies of the texts were prepared by Jaina or Buddhist monks, who were highly educated. This meant that they were immune from some of the defects but not from all of them. For instance, they might be able to correct misspelt words and many blatant grammatical errors, but could hardly be expected to root out interpolations or variant readings.

Startings from Vedic texts, variants are numerous; For example, the final verse of the Hiranyagarbha sukta (RV, X/121/10), readings:

Prajapate na tvadetanyanyo

Visva jatani pari ta babhuva

Yatkamaste junumastanno astu

Vayam syama patayo rayinam

is regarded by some scholars as an interpolation, since the pada. Text is the same as the samhita text. Others believe that the Padakara “may have taken no notice of it because of its apocryphal character” (K.C.Chatterjee, Vedic, vol.11, p.375).

We learn that the Mahabhasya of patanjali had at one time become so corrupt, that Abhimanyu, king of Kashmir, engaged the grammarian candracarya to restore it to the original form.

Candracaryadibhirlabdho desattamacattadagatam

Pravartitam mahabhasyam svam ca vyakaranam krtam (Rajatarangini.1/176)

This is probably the earliest instance of a critically edited text. But the question still remains as to how faithful it was to the original. Naturally, one cannot expect Candracarya to have done a perfect job, seeing that none of the modern equipment or methodology was available to him. However, it makes w us realize that the ancients were not unaware of the problems of text editing.

Now-a-days, we have realized the importance of critical editions of ancient texts. In order to prepare a critical edition, each of the mss.avialable must be examined thoroughly and the reading that appears to be nearest to the orginal must be selected by the editor, while also supplying all the variant readings. At best, this process, although it sounds simple enough, remains a difficult task. How does the editor select the reading closest to the original, in order to facilitate this work, the editor needs to be thoroughly conversant with the particular branch of learning, and to have a thorough grounding of the

language. It is necessary to know the subject in order to interpret the technical terms which may be inviolved.

Unfortunately, the vast field of Sanskrit texts still lacks sufficient critical editing. Very few of kalidasa's works, as a matter of fact, have been critically edited in the manner required. We are still in doubt whether it was kalidasa himself who divided his Meghaduta into Purvamegha and Uttaramegha, for not all commentators recognize this division. Many consider 34 verses in canto XV of Magha's S ia upalavadha to be interpolations, for only vallabhadeva amongst his commentators has noticed these verses. Yet others claim that Mallinatha refused to comment on these verses as they denigrate Krsna. This is still a point of contention. We have heard at this workshop that the greatest number of mss.are found of Jayadeva's Gitagovinda. Yet we are still to prepare a proper ctitical text of this lyric.

We, who have been studying Sanskrit for any length of time, have to depend on a few editions of the texts, most of which are not critical editions. There are popular editions to be followed by those who are merely interested in reading the works. These are editions for students which come closest to the critical editions. But they are still far from what is essential for research work.

Out of these experiences of critical text editing, we come to our expectations in this field. We all agree that the prime need of the hour is the availability of critical edition of Sanskrit texts. Here, we are handicapped by a lack of knowledge of ancient scripts. In this, respect, people with a sound knowledge of Sanskrit need to learn a number of scripts.Alternatively, person who knows the

scripts and a person who knows the language need to work in collaboration with each other. Unfortunaltely , there is very little scope for learning scripts, and a premier institution like the Asiatic Society should come forward and organize more such workshops and provide more opportunities for learnings scripts and reading mss.

Bibliography:

1.Vedic selections (vol, I&II)- ed.K.C.Chatterjee pub.Calcutta University, 1961.

2.Rajatarangini (Vol I-III)-Ed.M.A.Stein, Pub.Motilal Banarsidass, 1989.

6) PROBLEMS OF MANAGEMENT WITH MANUSCRIPT-HOLDING

Long before the printing technology was discovered, the medium of instruction was manuscript of hand-made or indigenous paper. The manuscripts were in many cases also made of ‘bhurja-patra’ or ‘betulla utilis’ or of skin or parchment paper of palm or palmyra leaves. These ingredients would have to be well-seasoned through certain processes before they could be used for writing purpose. A specially prepared ink was to be used for scripts. All these added durability to the manuscripts for some hundreds of years.

In different parts of India such manuscript holdings are found in large numbers. Since the introduction of printing technology in our country, the use of manuscripts as the medium of instruction had become obsolete. But nevertheless, they donot lose their importance as they are the store-houses of our past knowledge in various discplines of study in ancient and mediaeval India. With highly advanced printing techonogy of today, one cannot imagine tha old manuscripts have any role to play.But one cannot disown that manuscripts are the great repositories of our knowledge in different branches of learning, which need proper care and attention for their assessment and preservation. These manuscripts were written in various regional languages and

scripts delineating regional literature. At the same time Sanskrit as the parent language of almost all the regional languages was largely used all over India and innumerable manuscripts were written in Sanskrt containing subjects of all branches of Sanskrit learning which was used to be cultivated through centaries.

Ever since the discovery of the art of writing Sanskrit has been the main medium of instruction among the educated Indians. Pali and prakrta were also widely used. But almost all the Sastra-granthas were used to be written in Sanskrit. They included all the branches of knowledge, such as Grammar, Litrature, Philosophy, Law, Astrology, Astronomy, Mathematics, Medicine, Engineering etc. The Ramayana, the Mahabharta and the Puranas forming a vast literature were written in Sanskrit. They are the great repositories of our knowledge of ancient history, mythology, social history, art, architecture and what not? The Vedic literature comprising the Sanhita, Brahmana, Aranyaka and Upanisad that formed a vast literature was written in Vedic Sanskrit.

Innumerable maniscripts deal with all these subjects of Sanskritic studies written in old Newari, Grantha and other regional scripts. In West Bengal, however, manuscripts have been found in large numbers. These manuscripts are mostly in Sanskrit and Bengali. In most of the villages Sanskrit manuscripts have been found, while Bengali manuscripts are comparatively few. This shows that Sanskrit education was current in Bengal right from ancient times till the introduction of English education in our state in the first half of the 19^{th} century. Sanskrit the most popular vehicle of imparating higher education to the pupils

in those days. Numerous tols and important centres of Sanskritic learning were established. Such centers had their own manuscript holding of different branches of Sanskrit learning. Very often the pupils used to copy manuscpts dealing with Vyakarana, Kavy, Ramayana, mahabharta, Purana, Alankara, Nvyaya, Vedanta, Samkhya, Smrti, Jyotisa, Caraka, Susruta Samhita, Vastu-sastra, Silpa-Sastra etc. Scribes were also employed on an honorarium and huge masses of manuscripts were to be copied from old ones and kept preserved in the houses of the Gurus. In ancient times Navadipa was the foremost centre of Sanskrit education and huge mass of Sanskrit manuscripts have been found from this place. The other important centres were Krsnanagar (Nadiya), Khanakhul-Krsnanagar, Triveni, Bansbria, Saptagram in the district of Hooghly and Burdwan and kalna in Burdwan district. But almost in very district, Sanskrit was studied widely. In course of explorations, one may still come across old manuscript which are not properly preserved. Due to the ravages of time and sheer negligence of manuscript holders, many old invaluable manuscripts have been subjected to destruction and have become prey to insects and white ants. Flood havoc and other natural calamities have further added to their extinction.

In the early days of the British rule in Bengal, some European Oreintalists made an attempt to collect old manuscripts, mostly in Sanskrit from many places. These manuscripts were brought to various educational institutions like the Asiatic Soceity and the Imperail Library (National Library), while a bulk of important manuscripts were transported to London and Paris and some other

countries of Europe and were preserved in the India office Library in London and Bibliothek National in Paris. The European Oriental scholars had taken much institutions at Calcutta like the Calcutta University, Sanskrit sahitya Parisad, Vangiya Sahitya Parisad and the Sanskrit College, hundreds of manuscripts were collected from the rural as well as the urban areas in West Bengal. They are still lying in these famous institions.

But most of the manuscript preserved there remain inaccessible to us for various reasons. Due to paucity of scientific catalogues manuscripts are not easily traceable and available to the readers. Many of the manuscripts are not in good condition and unless micro-film is prepared or reprographically well-documented they cannot be made available to the readers. Scribes or expert copyists should be employed for correct reproduction of much older and important manuscripts.

But of this, manuscripts preserved there pose no such serious problem as can be faced by the readers. Suitable remedies are being ensured gradually for overcoming these problems with respect manuscript holdings. But there are lots of manuscript holdings in many private collections or even in many rural museums which are not properly organized or well-maintained or managed. These private organizations and semi-public institutions have to their credit huge mass of manuscripts collected from many remote areas. But these manuscript-holdinga are lying without care and proper management. They are not even sceitifically catalogued and numbered for their easy accessibility. Curiously, certain manuscripts in some collections are new.

For the management and maintenance of manuscripts, particularly in Sanskrit, the first step to be taken is to arrange them subjectwise. We have come across lots of Ramayana and Mahabharata manuscripts and also of the Puranas. Next comes Vyakarana which has different branches like Serasvata, Samksitasara, Mughbodha. The study of these branches of grammar was very much in vogue in ancient Bengal, while the study of Paninian system was not so popular in this state. A large number of manuscripts dealing with these braches of Sanskrit grammar have been found. The manuscripts contain commentaries also. All these manuscripts should be classified according to chronological order. At the end of each manuscript the scribe after copying the whole, mentions the date in the colophon, which should be carefully noted. In Bengal Nyaya system of philosophy had become much popular. We have been able to trace as many Nyaya- manuscripts as possible from many cetres of Sanskrit learning. At Khankul-Krsnanagar (Hooghly) Kanada Tarkavagisa was a famous logician and his 'Bhasa-Ratna', known as Kanadi Bhasa-Ratna was widely studied. Hence a large number of manuscripts Kanada's Bhasa-Ratna have been found from many Sanskrit centers. Similarly manuscript on Smrti-Sastra have been found from many places. Khankul had a separate 'school' of Smrti led by Narayana Bandyopadhayaya. But manuscripts on Narayana-Smrti are yet to be traced.

Throughout the district of Midnapur there were many Sanskrit centres or tols (catus pathis). A survey of a particular region reveals that various subjects in Sanskrit were taught towards the 17^{th}-19^{th} century. This place is adjacent to

the birth-place of Isvaracandra Vidyasagara where Pandit Krsnacandra Vidyavagisa, a famous pandit lived in the second half of the 18th century. Khankul was not far off from this place. From the manuscript-holding of Krsnacadra we have been able to trace one manuscript on 'Kanadi Bhasa-Ratna'. This incomplete manuscript contains fifty-nine folia. It begins with this benedictory vers:

'Cudamani padambhoja-bhramari-bhutamaulina,

Samksipya Sriknadena Bhasa-ratnam Vitanylate.

Padartho dvividhah bhavo bhavasca. Tatra bhava-padarthah Vaisesika-mate Sadvidhah. Dravya-guna-karma-Samanya-Visesa….bhedat.

It means 'Sri Kanada explicates Bhasa-Ratna in precise form having his head looking like a large black bee on the lotus-like feet of CUdamani.

Then he expounds the subject as such: 'padartha (catagories) is of two kinds- bhava and abhava. According to Vaisesika system, bhava-padartha is of six kinds. They are: draya (substance), guna (attribution quality), karama (action), samanya (generic attribute), Visesa (particularity).

In this northern part of Midnapur district in West Bengal there lived a famous commentator named Gopala Cakravartin towards the first half of the 17th century. His birth-place was Jadupur (Keshpur P.S., Midnapur). He had written a commentary on the Adhyatma Ramayana, which was named 'Balabodhini', which have been able to trace a manuscript containing his commentary on the six Kandas of the 'adhyatma-Ramayana', which belonged to Sri Krsna-Deva Sarman, an inhabitant of the village, Kharadh under Barda

Pargana (present Ghatal P.S.) The manuscript was copied in Saka 1720 or 1798 A.D. In the colophon it has been mentioned as such:

'Iti Mahamahopadhayaya Sri Gopala Cakravarti-Viracita- dhayatma-Ramayana-tikayam Balabodhinyamuttarakande navamah.

Curiously, Gopala has given his own introduction in two Slokas: asit sarva-gunavadata-carito bandyo hiranyabhida stat-putrah 'Siva ityabhucchiva-suto-jnani Mahes'astatha. Durgadasa-samahvayo bhavodatho Jnanatmajastatsutah Sri Gopala dharamarah samatanotti kamimmam Sanmude.

iti Bandya-Ghatiyakula-prasuta-satpandita-SriGopala-Cakravarti-Viracita Balabodhinimadhyatma-Ramayana-tika Samapta.

Sri Krsna Deva Sarman was the scribe of this manuscript which was dated 1206 B.S, saka 1721 or 1799 A.D. This Sri Krsna Deva was undoubtedly Sri Krsnacandra Vidyavagisa of Khararh (under Ghatal p.S., Midnapur district.) which is now a municipal town. Srikrsnacandra had given his own introduction in the following Sloka which occurs in a manuscript containing a commentary named 'artha-kaumudi' on 'Prabodha-Candrodaya-nataka by Krsna misra. The commentary was by Gopala Cakravartin.

'Khyato Vikhyato Gaude suvidita-varadaikasisamkhe (?) Khararo

Samakhya-diska-sudakso Dvijakula–vibhava Srila Krsnabhidhanah Vidyavagisa- namna Vidanti Katamato (?) Brahmanistho, yamasta Tasyartham grantha-saram Vyalikhi suvidusam Kauli \-samakhya-vatoham.

In the manuscript holdings of Sri Krsnacandra Vidyavagisa there in a manuscript containing a commentary on Candi named 'vibodhini' by Vidya-

Vinodacar. It contains 48 folia. The scribe is Sri Visnu Sarman. In chronogram he had mentioned the date of copying:

Bana-rtu-sadekabde Sake Sri-Visnus'armana

Candi-tikapi Yatnena vyalekhi budha-vasare.

Here Bana means 5, Rtu6, sad6, Eka 1. The number should be turned leftward (Ankasya vama Gatih) giving the figure 1665 sakaera or 1743 A.D.

There are many manuscripts on Samksiptasara-Vyakarana of Kramadisvara with the commentaries of Goyicandra named 'Rasavati' with certain modifications and a vrti by Maharajadhiraja Jumaranandin. A manuscript named Suddhi-Dipika by Sri-Sri nivasa was copied in the Saka year 1554 or 1632 A.D.It is probably a treatise on Jyotisca which was composed as early as 1129 sake era or 1207 A.D. The chronogram is reproduced here:

'Astam gatavati mihire dyuti (?) makhila-dosakule ca go-vibhave udvahadisu suddhi-grahanartham Dipikakriyate. Viphala-nyanyasastrani Vivadastisu kevalam. Saphalam Jyotisams astram candrarkau yatra saksinau.

The commentary of Ramacarana (Taraka-vigisa) on the Sahitya-Darpana of Visvanath Kaviraja is well-known. From a colophon of a manuscript containing the commentary, it is known that Ramacarana had written this commentary as early as the 1622 saka or 1700 A.D. The sloka indicates the date of composition through chronogram:

'Aksi-paksa-rasa-candra sammite hayane Sakara (?) sundara pateh Srila Bamacaranagrajanmana Darpanasya Vivrtih prakasita Sakam 1622.

We have also come across a manuscrift of the Bhatikavya which is dated 1435 saka era or 1513 A.D.There are many manuscrifts of the Bhagvata and other purnas. Vaisnava works like the Caitanya-candrodaya-nataka, Krsna-Karnamrta, Rasakadamba, Harivamsa, Brhannaradiya purana etc are found along with certain Vaisnava treatises.

But excepting certain institutions, libraries and museums where scientific preservation is ensured, most of the manuscripts are kept in private collections. Even today we have noticed that some very old manuscripts are worshipped with flowers and water as a result of which they gradually become subject to decay and destruction. It is now time to look back to our ancient heritage and devise means for their proper preservation and maintenance. The age-old manuscripts are till now waiting to be properly treated and a door of knowledge would be open through these invaluable documents of the past.

*Manuscripts discussed in this paper are kept in the Parivrajaka Pancanana Raya Museum in Basudevpur village under Daspur P.S.in the district Midnapure. The author was fortunate to collect some of these Mss.long ago, the author has the pleasure to enclose a short list of manuscripts preserved in the museum.

7) PAMCHANAN RAY MANUSCRIPT COLLECTION

(BASUDEVPUR, WEST BENGAL)

Following is the list of manuscripts collected and preserved by Sj Pancanana Raya Kvyatirtha of the village Basudevpur, P.O.-Sankarpur (Via Daspur) Dist.Midnapur (West Bengal). They are composed of indigenous papers and palm-leaves. The bulk of them is in Sanskrit written in Bengali script a few of them are in Bengali language. They were copied between 16th century and the first half of the 19th century A.D. The dates indicated against the name of the manuscripts are chiefly assigned to the copyist (Lipikara). In most of the manuscripts are mentioned two eras, Saka and Bengali. But in the list is also furnished the Christian era by adding seventyeight to the Sakaera. The manuscripts are arranged serially and their total number is 153. But the actual number of works are more than double the total number of manuscripts. That is to say, a manuscript contains several works on the same subject or different subjects.

The Sanskrit MSS deal with various branches of Sanskrit learning, Vyakarana, Kavya, Smrti, Samkhya, Vedanta, Jyotisa, (Astronomy), Sakuna (science of birds and beasts), Alamkara, Nataka, Tantra, Purana, Upanisads.

1. a) Krsna-Caritra (in Sanskrit prose, page6). May be the part of a Purana or the Bhagvata.

b) Vyakarana (up to Subantapada, pages 18). Sanskrit Grammar.

c) (beginning with Tinantapada up to fifty first page of the same manuscript). Sanskrit Grammar.

d) Vyakarana. A few pages with two different handwritings. Sanskrit Grammar.

e) Vyakarana. Krdanta-pada, contains thirty-four pages. Sanskrit Grammar.

f) Vyakarana. A few torn pages of the Taddhita-pada. Sanskrit Grammar.

g) Vyakarana, Beginning with Tin.

h) Sanaiscara-stava (in praise of the god Sani-three pages).

2. a) The Naisadha-Carita along with a commentary-later part of the Naisadha-Carita up to fourteen pages.

b) A mantra for purifying the bed.

c) A few pages.

3. a) Bhramarastaka by Kalidasa.

b) Upon a few pages is seen notation of an English song.

c) Samksipta-sara Vyakarana (karakapada). It contains the following chapters of Taddhita-pada, Trisamasa pada- commentary on Taddhita-pada by Goyicandra.

d) Besides there are some folia with a different subject matter.

4. a) Commentary on. Vyakarana (Lipikara: Gaurikanta Vidyalankara, Author: Nyaya-Pancanana),

b) Ditto.

c) Ditto.

d) A note on Krdanta by Vansivadana Bhattacary.

e) A note on Samasa by Vidyalakara Bhattacarya.

5. a) Sara-manjari.

b) Commentary of Mathuranatha.

c) Siddhanta-laksana.

d) Visesa-vadartha (Lipikara: Ramanatha Sarman),

e) Visesa.

f) Paksa.

g) Commentary on Paramarsa by Siromani.

h)

i) Jagaddhatri puja Paddhati.

6. A commentary on Kavyaprakasa by Mahesvara Nyayalankara Bhattachraya.

7. The whole of the Sahityadarpana and a few folia of a manuscript. The well-knovm work on Sanskrit poetics.

8. a) Grahagatattwa.

b) Dayabhaga (forty-six pages only).

c) Ahnikapramana tattva (one hundred and thirt-three pages)

9. a) Devapratistha-tattva.

b) Mathapratistha-tattva.

c) Jalasayotsarga etc.

10. Udavahatattva and various commentaries on Vyakarana- the manuscript contains other books also.

11. Commentary (Tika) on the Sahityadrapana.

12. Commentary by Goyicandra,

13. Commentary on the Vyakrana.

14. Samskara-Tattva. Saka 1762, A.D. 1840. A treatise on law.

15.Bhasa-pariccheda of Visvanatha) Well-known works on Nyaya-Lingadi-Samagraha) Vaisesika-philosophy. By Srikavicandra

Amar-Kosa-well known glossary of Sanskrit words.

Vyakarana-Tika (commentary on Skt.Gram) Sakara-pradipa by Sarasvati Kanthabharana).

16. Subanta-Pada by Goyicandra.

17. Commentary on the Vyakarana (Gram.) by Goyicandra, Skt. Grammra

18. Bhasa-Ratna. Probably a treatise on Nyaya-vaisesika philosophy.

19. (a) Bhagavatamrta-kanika. Saka 1639, A.D.1717).

(b) Bhagavata with a commentary. 1013 B.S., c 1607/8.A.D.N.B. Manuscript No.19 (b) contains a coloured picture of Dasavatras.

20. Nyaya-sastra with many chapters dealing with various topics of Nyaya.

21. An astrology chart, similar to Hanumat-Caritra.

A few letters written to Pandit Udaya Candra Nyayabhtisana of the 19th century Midnapur dist, W.B.

Sarasvati-stotra.

Ekadasi-Tattva-writer Madhava Candra Deva-Sarman. Saka 1774

A.D.1852.

Malamasa-Tattva,

Smrti-Tattva.

Munimnuca-Tattva.

22.Dolayatra, Tithi-tattva.

23. Sakunam by Mahadeva.

Ratimanjari by the poet jayadeva

Srngara-Tilaka of kalidasa

Prasnakathana-Jnanam.

Samaya-Pradipa by Hariharacarya.

Stri-Pum laksanam,

Jyotih-sara by Mahesa.

Vyakarana, Saka 1613, A.D. 1691, B.3. 1098.Skt. Grammar.

Vidvanmoda-Tarangini of Ciranjiva Sarman.

Vyakarana-Taddhita-Saka 1696, A.D.1774.

A few folia of varied subjects.

Commentary on Vyakarana-Dhatu (verb-roots).

24. Naksatra-Homa.

Vriksa-Pratistha.

Suryarghaya-Dana.

Dvitaya-Bhiska-Prayoga.of Sri Rama dayala Deva Sarman.

A few pages of different manuscripts.

25. A few torn pages of Caitanya-Caritamta. Bengali poetical composition, depicting the life of Lord Caitanya.

A collection of torn pages of various manuscripts.

26. Sankuntala-Bharta-Samvada of the Garuda-Purana.

*27. Jahnvi-Mangala. Bengali poem. (Beng. Poeticial work by Pranav allabha Ghosa of the 17th-18th Century A.D.)

28. The Mahabharta. Saka 1730, A.D.1808.

29. ditto (Aranyaka Parvan only). Saka 1725, A.D.1803, B.S.1210.

*30. Amara-kosa-Tika by Vidyavinoda. Saka 1754, A.D.1832, B.S.1239.

*N.B.some Persian scripts are noticed in manuscripts no.30

31. Commentary on the Adhyatma-Ramayana by Sri Gopala Cakravatin Saka 1721, A.D.1799 B.S. 1206.

*A mangala-kavya in Bengali dealing with the legend of Ganga-written towards the end of the 17th Century A.D.at Ambikanagar Dist.Burdwan, West Bengal)

32.

33. Skandapurana Purusottama Mahatmya. Saka 1747, A.D.1825, B.S.1232.

34. Samksipta-sara-Junaran kandi Vrti,

*35. Bhagavata-Sandarbha of Sri Rupa-Sanatana.

*36. Siddhanta-Muktavali Tika of Sri Krishnadasa Sarvabhauma. Saka 1720, A.D. 1798.

37. Divya-tattva-Raghunandana and Vrsotsargatattva. Saka 1742, A.D.1820,

Tithi-Yajur Vrsotsargatattva,

Pratistha-tattva.

38. Tithi-tattva,

39. Nyaya-Pancanana taddhita-Pada.

40. Dhatu-Vrtti-kavya-Kamadhenu, Saravali etc.

41. Vaisnava-Tosini-Tika of Sri-mad Bhagavata. A commentary on the Bhagvata.

*42. Jaimini-Bharta. Saka 1568, A.D.1646.

43. Mahabharta (Santiparvan)-Saka 1730, A.D.1808, B.S. 1215

44. Ramayana (Ayodhya-kanda-saka1715, A.D.1793, B.S.1200.

45. Sri Sat Sastra Mantra

Adhikarana-Kaumudi of Narottama-Saka 1722, A.D. 1800

Tarkalankara

Dharma-Dipika by Candrasekhara-B.S. 1199, A.D. 1792/93.

Vacaspati

Adhikaranam by Ramakrsna

(with a bibliography;

46. Aditya-hrdaya Jumaranandi-vrti

Second canto of the Bhatti-Kavya

Graha-Kavaca

Suryarghya-(Dvadasa)-Saka 1768, A.D.1846

Prayascitta-Tattava-Saka 1776 A.D.1854

Vastu-Yaga-Tattva-ditto

Deva-Pratistha-Tattava-ditto

47. Sankari-Samgita by Jayanarayan-3 1722, A.D. 1800.

N.B.Sankari-Samgita has been placed in manuscript No.132.

48. Ramayana (Uttara-Kanda-S 1707, A.D.1785 verses 4217 chs.65)

49. Syama-Rahasya.

Kali-Sahasranama-Stotra

Kali-Puja-Paddhati

50. Mahabharta-santi-Dana-Saka 1730, A.D.1806, B.S. 1215.

51. Paramatma-Sandarbha

Krsna-Sandarbha

52. Mahabharta (Adi Parvan)-Saka1723, A, D, 1801, B.S. 1208.

53. Mahabhagavata (Prathama Khanda, chs.81) –S1751 A.D., 1829 B.S.1236.

54. Samkhya-Kaumudi (Sankhya Saptati-TikaTattva-Kaumudi by Vacaspati Misra) S 1732, A.D.1810.

55. Dayabhaga-Vidhi-Tattva- Udvaha-Tattva-S1705, A.D.1783.

*56. Kali-Purana (50 chapters)

57. Mahabharta, Saka 1730, A.D.1808, B.S.1215.

*58. Dayabhaga (A few leaves)-S 1583. A.D. 1661. The book was written in 1661 A.D.The date of the lipikara is saka 1718, A.D. 1796.

Smarta-Vyavastharnava written by Sarvabhauma at the instruction of the king Raghava Rai.

59. Adhikarana-Kaumudi

Harinamavali-Vyakarana

Old manuscript of a Vyakarana

60. Bharta-Vyakhya (with a commentary naned Dipika with a view to interpreting the meaning of the Bharta).

61. Brhannaradiya. Saka 1745, A.D.1823, B.S.1230.

62. Bhasa-Pariccheda. A well-known work on the Nyaya-Vaisesika philosophy.

Sandrabha-Citamani by Candrasekhara.

Commentary on Magha	well-known Sanskrit poem
Naisadha	poetical compositions
Commentary on Naisadha	and their commentaries

63. Pancadhaya Brhama-Samhita

Bhakti-Ratnavali

*Bhagavatamrta. Saka 1764, A.D.1842, B.S.1234(?)

Brahma-Samhita

64. vyakarana-Tika (60pages).

65. Bandhayatva-Nasaka-Karma

Prayascitta-Tattva

66. Harivamsa. Saka 1731, A.D.1809, B.S.1216.

67. Mahabharta (Bhisma Parvan)- S1727, A.P.1805, B.S.

1212 Jayadratha-vadha-B.S.1213, A.D.1806.

68. Sabda-Sakti-Prakasika-S, 1744, A.D.1822

Kariksutra in the Sabda-Sakti-Prakasika-S 1745, A.D. 1823, B.S. 1230

A few pages of Nyaya-Sastra

*Kanadi Bhasa-Ratna	(by Kanada Tarkavagisa of Khankul
Bhasa-Pariccheda	Krishnagar in the district of
	Hooghly, West Bengal.)

69. Dana-Kriya-Kaumudi of Sri Govinda Kavi Mulamnuca-Tattva

70. Brahxna-Vaivarta-Purana-Saka 1745, A.D.1823, B.S.1230

Pandava-Gita-B.S.1087, A.D, 1680

Gita-Sara-Sahasra-Stava-Raja

71. Sri Tirtha-Cintamani with a bibliography parasari-Krsi

72. Suddhi-Tattva

A few torn pages and a bibliography

73. Mahabharta (Udyoga Parvan)-Saka 1727, A.D.1505, B.S. 1212.

74. A few pages of the Madhyamacara nirnaya

Mahabharta

Harivasma-Vrttanta-Samgraha-S 1731, A.D. 1809, B.S.1216

75. Ramayana (Kiskindha-kanda-S 1719, A.D. 1797, B.S. 1204 Mahesvara-Tirtha-Tika.

*76. Kalki-Purana. B.S.1246, A.D.1839.

*77. Ramayana (in Bengali)

A few pages of mahabharta, Caitanya etc.

78. Mahabharta (Karna-Parvan-saka1729, A.D. 1807, B.S. 1214.

79. Vidyavinoda-Candi-Tika

80. Manava-Dharma-Sastra (manuscript of palm leaves).

81. Gautami-Tantra (of palm leaves).

Goyicandra's commentary on Subhanta-Pada.

*82. Prti-Sandarba (Sandarbha-VI of the Bhagvata-Sandarbha.

83. Samaksipta-sara with Goyicandra's commentary (Subantapada)-Sanskrit Grammar.

84. A few pages of a manuscript

A commentary by Brhmananda of the Karpura-Stotra

Karpura-Stava-Tika

Sarada-Tilaka.Tika by Jagandhara-Saka 1746, A.D. 1824 Sarada-Tilaka Panjika (Almanac)-Saka 1746, A.D.1824, B.S.1231

85. Commentary on the tenth Skandha of the Bhagvata-Saka 1742, A.D. 1820

86. Explanatoin of the Vedanta-Sara

Explanation of the Sri-Hastamalaka-Bhasya) upanisads

By Sri-Devendra Bhattacarya of Benaras) and

Taittiriya-upanist) other

Siddhanta-Setu. Saka 1743, A.D.1821) philosophical

B.S. 1228.) works

Atmanatma-Viveka)

Kenopanist, isopanist, Siddhanta-Setu)

Samudraka-Purusa-Laksanam)

87. Mahabharta (Bhisma-parvan p.236)

(Bhisma-parvan p.258. Saka1726, A.D. 1804)

Ramayana (Aranya-kanda. Saka1718, A.D.1796, 3.3, 1203)

88. Sudra-Candu

Satcakra-tika by Ramavallabha Sarman

Graha-yamala

89. Ramayana (Ayodhya-Kanda).

90. Gita-Govinda

Sara-Samgraha by Vacaspati

A few pages of Alamkara (Rhetorics)

Prayascitta-Suddhi (purification by Expiration) etc.

*Kavya-Candrika by Nyaya-Vagisa, Son of Vidyanidhi

Sara-Samgraha

Kalottara-Nandikesvara-Bhasita

Samudri Purusa laksanam

91. Mahimnah Vijyani, Vyakarana-Tika

Purascarana, Acara-Patalah

Bhavani-Sahasra-Nama-Stotram in the Rudra-yamala,

Vrndavana-Mahatmya

*Krsna-Premamta by Caitanya

Mahavidya of Kalika, Dhatu-Suddhi, Cakra, Bala-Bodhini

*92. Bhagavata with the commentary of Sridhara-Svami. Saka 1584, A, D.1662.

93. Satkarma-Dipika by Sri Krsnananda-VIdyavagisa. Saka 1716A.D, 1794.

Tara-Rahasya-Vrttika by Sri Sankaracarya, inhibitant of Gaor-Saka 1719, A.P. 1797.

94. Mahabharata (Udyog-Parva). Saka 1727, A.D.1805, B.S. 1212.

95. Valimikiya Ramyana (Sundara-Kanda). Saka 1720, A.D. 1798, B.S. 1205.

96. Mahabharta (Asvamedha-Parva etc). Saka 1731, A.D. 1809, B.S. 1216.

97. Sodasi-Durga-Puja, Amsa-Nama, Vyakarana

Vyakarana-Panca-Makara-Pada

Sri Sri Magha Nandigrami. Saka 1758, A.D.1836, B.S. 1243.

Suddhir-Karika by Sri Narayana Bandyopadhayaya of Krisnanagar-Khankul (Dist-Hooghly)

Samasa-Pada. Saka 1763, A.D. 1841.

Vyakarana –Taddhita, PancaMakara-pada. Saka 1762, A.D.1840

Subanta-Pada, Samasa-Pada, Sandhi-Pada. Saka 1758, A.D., 1836, B.S.1243

Tinanta-Pada

98. Pasanda-Dalana (Bengali Poem-page18).

Sri-Caitanya Caritamrta (p.103), Bengali

RadhaRasa-Manjari,**) poems

Works of Kavicandra and others)

Ujjvala-Nilamani-BhasaGrantha, Sara sarani (?)

Kutini (Bengali), Sanskrit Glossary, Bengali Verse

Rasa-Kadamba-akhayana, Sivayana(?), Vratakathamala

Krsna-lila of Haridasa, Radhakrsna-lila

Rasa-Kadamba. B.S. 1175, A.D. 1768

**Caitnya-Caritamrta

99. Vrsotsarga-Pramanam by Raghunandana. Saka (?)

A few pages of some Bengali verses

100. Sat-Cakram, Tattvananda-Tarangxni, Tirtha-Tattva

Matr-Sodasi, Devi-Sukta, Laksmi-Caritram

*Gangasagra-Vidhi by Vidyabhusana Bhatta

Tuladana-Prayoga, Cauramantra-Parijanana, Satckra-Krama

Acara-Sara, Saka 1611, A.D.1689

Mahacina-Kramacara

101. Dvadasa-yatra-tattva of Raghunandana. Saka 1735, A.D.1813.

102. Hitopadesa of Visnu Sarman. Saka 1664, A.D. 1762.

103. Mahabharata (Aranya-parvan). Saka 1724, A.D, 1802, B.S.1210

104. A commentary on the 'Prabodha-candrodaya' (a well-known dramatic compositon in Sanskrit) by Gopala Cakravrtin Saka 1748, A.D.1826, B.S.1233.

105. Vasistha-Parimocana-Mantra.

Pum-stri-Laksana, Samansa-Pada. Saka 1691, A.D. 1769, Ahnika-Tattva, Prayoga-Tattva, sila-Tattva.

106. Prayascitta-Vyavastha, Karma-Vipaka. Saka 1704, A.D.1782 Sakuntala-Bharta-samvada,

107. Mahabharta (Stri-Parvan). Saka 1730, A.D. 1808, B.S.1215.

Mahabharta (Salya-Parvan). 6aka 1729, A.D.1807, B.1216.

108. Bhatti-kavya, Gita-Govinda (with commentary).

Moha-Mudgara, Megha-duta. Well-known Sanskrit'lyric didactic and court-poems.

109. Bhakti-Sandarbha (5th Sandarbha).

110. Sani-Santi, Guru Tantra. Saka 1781, A.D.1796. Varnabhudana Raghunandana.

111. Radha-Tantra.

112. Sahitya-Darpana. Saka 1745, A.D. 1823, B, S.1229.

113. Jyotis. (Astrology). A few pages dealing with Janma stami in the Bhagavata.

114. Danda-Kaumudi by Siddhanta-Vagisa. Saka.1728, A.D.1806.

115. Durgopakhyana in the Brahma-Vaivarta-Purana.Saka 1747, A.D. 1825, B.S.1232,

116. Karika-Taddhita-Pada by Narottama Vidya lankara. Goyicandra-Tika. Saka 1703, A.D.1781.

117. Dasama skandha(of the Bhagvata) with the commetary of Pancana, Saka 1795 (?)

118. A part of the Hari-Vamsa. Saka 1731, A.D. IG09, B.S. 1216.

119. Goyicandra-tika on the revised Vrtti of Jumaranandir,

**120. Bhatta-Kavya MS of palm-leaves up to canto XXII, Saka1435, A.D.1513.

121. Sri KrsnaJanma-Khanda in the Bradia-Vaivarta Purana. Saka 1745, A.D.1823, B.S. 1230.

122. The 8th Skandha of the Bhagvata. Saka 1766, A.D.1844.

The 10th Skandha with the commentary of Sri-dhara-Svamian.

123. Mahabharta(Virata-Parvan in Bengali) B.S. 1258, A.D.1851.

124. Valimikiya Ramayanam (Bala-Kandam). Saka 1715, A.D. 1793, B.S. 1200,

125. A Commentary of Vidyavinoda on Amarakosa. Saka 1750, A.D.1828 B.S.1235.

126. Samksipta-Sara-Vyakaran.

Vetala-Panca-Vimsati,

128. Krama-Sandarbha of the Bhagavata (Sandarbha-VIII), Saka 1724, A.D. 1802.

129. Tadhita-tika of Goyicandra-Saka 1603, A.D. 1681 Hindi manuscript (Devnagri-script).

130. Mahabharata (Virata-Parvana). Saka 1716, A.D.1794.

131. Fourth chapter of Hie Brahmia Sutra-Vritti

Vedanta-Sutra. Saka 1734, A.D, 1812.

Isopanisat, Vedanta-Sara. Saka 1708 A.D.1786

Hasta malaka with commentary, Brahmasutra.

132. A MS written in Bengali script but in different language

Sanskari-Sangita. Another MS in Bengali script but in a different language.

133. Mahabharata (Sabha-Parva), Saka 1724, A.D, 1&02, B.S. 1209.

134. Subanta-Dipika by Nyaya Pancanana

Jalasayotsarga of Ragunandana. Saka 1630, A.D.1708.

135. Brahma-Yamala.

136. Ananda-Lahari-Tika

Kumara-Sambhava (of kalidasa).

137. Cihna-Laksana, Kalika-Vrata, Vidyaraebhadaya Vyakarana,

Kalika-Yrata, Panca-makara-Pada,

Vyakarana, Vyakarana,

138. Bhagvata-tika (i.e.commentary on the Bhagavata)

Caitanya-Manujsa.

139. Dasama-tippani-Vaisnava-tosini.

140. Goyicandra-tika. B.S.1177, A.D.1770.

141. Sri Bhagavad-Bhakti-Vilasa by Sri Gopala-Bhatta Saka 1742, A.D. 1820, B.S.1227.

142. Brahma-Vaivarta (Purana) Saka 1749, A.D. 1827.

Markandeya-Purana. Saka 1745, A.D. 1823.

143. Ekadasi-Tattva.

144. Hamsa-Duta by Rupa Gosvami. Saka 1696. A.D.1774. ASanskrit lyric poem by the well-known poet.

Nayika-varnanam by Bharata-kavi.

145. Jyotisa-Jata-Karmaviya-Caradala-sodhanam

Santana-suddhi-dipika. Saka 1554, A.D.1632 Caaarkara-

Cintaaiani.

146. Kanadi-Bhasa-Ratna by Kanada Tarkavagisa of Khankul-

Krsnanagar of Hooghly District, West Bengal.

Chandogya-Mantra-Bhasya “by Sri Bhatta Guna-Visnu

Vrsotsarga-Mantra-Vyakhya of the followers of

Chandoga school.

Durga Puja-Pramana-tattva. 3aka 1700, A.D.1778

Durgarca-vidhi by Sri Paramananda Bhattacarya

Vidyavinoda-Candi-Tika (incomplete), Kosthi-Pradipa,

Stava-Tika, Mahimna-Stava-Tika,

147. A few pages of the Vedanta

Satcakradi-Tantra Kaivaly-Tantra, Yoga-Ratnakara,

Pancadasi with commentary. Saka 17^7, A.D.1605,

B.S. 1213.

148. Satapiya-Aarma-Vipaka.

149. Ratikalpa-lata. Saka 1703, A.D.1731. Saka 1703, A.D. 1781.

150. Virata-Parva-Dipika by Arjuna Misra.

151. Kaulavali-Nirnaya compiled Jnananda Giri.

152. Srimad Bhagvata. Saka 1639, A.D.1717-

153. Smasana-kalika-puja and Jyotihsaramrtha.

8) CONSERVATOIN OF BOOKS &MANUSCRIPTS (PAPER) IN LIBRARIES

Abstract:-

The paper describes the various factors of deterioration of books and manuscripts (paper) and measures to control them, keep them in check and describes the techniques which could be deployed for reinforcing fragile and brittle sheets.

Before the discussion about Conservatoin of books and paper manuscripts we have to know what is Consrevation?

Conservation has two aspects: Preservation and restoration both of them are complimetary to each other. Preservation is a wider perspective and includes such activities as storage, handling, disinfecting etc. In a nutshell preservation is any action taken to prevent or retard deterioration. Restoration is any surgical operation requiring repairing and strengthening of the documents.

Preservation: The collection of Library contains of books, journal, reports, pamphlets, manuscripts, clipping and audio-visual materials etc. Most of the readable materials in Libraries are of organic nature and prone to decay very fast thus becoming unfit for use, if proper care and handling is not being done. The

various other factors (external and internal) also damage such material if not maintained properly. These agents can be grouped into six categories. They are:

1. Physical agents such as light, heat and humidity. They are also called environmental effective agents;
2. Chamical agents such as Acidity, Gaseous, Pollution;
3. Biological agents such as insects;
4. Microbiological agents such as fungi or mould;
5. Accidental agents such as fire and flood;
6. Physical deterioration are rough handling and improper storage.

Environment Humidity & Heat:

Humidity beyond 70% permites moulds to grow and flourish. It also causes paper to swell, pigments layer to peel or develop micro-cracks owing to the different rates of expansion and contraction between the binding adhesive of the pigements. Fluctuation of relative humidity and tempraure causes great rupture in the molecule of paper and other organic materials.

Heat causes brittlenes. Excessive heat beyond 32^{0}C speeds up processes of degradation, discoloration and the natural oil present in palmleaf and birch-bark evaporates causing loss of flexibility. It is recommended that the relative humidity should range 55% to 60% and the tempraure between 22^{0}C to 24^{0}C. Air Conditioning or dehumidifying machines or chemical silica gel (2-3kgs. For a room of 20-25 cubic meter capacity) are the best answer in moist climate and damp building. Defecting air-conditoning and its occasional breakdown results

in rapid damage than that which would otherwise result by storing these materials in ordinary climatic conditions with proper care.

Circulation of air in the stack area is essential. Because air circulation helps eliminating pockets of stangnant air which coupled with excessive humidity result in growth of microorganisms and other injurious pests.

Shelves should be fixed away from the walls on upright fixers equidistance throughout the storage area. The distance from wall, ceiling and floor should be at least 15cm.

Effect of Light: Light is also a source to deteriorate the works or art. The strong and short waved light is harmful to library materials. It fades works of art. Less light means lessfading. But there must be sufficient light for a good viewing. Any excess light will hasten fading or embrittlement.

The following steps are taken to guard that materials against unnecessary exposure:

1. keep the delicate water colour documents with facing ink in storage;
2. Display them in a room where natural sufficient light and air is available;
3. Install the showcases with fabric coverings which the visitor himself can remove and replace;
4. The time of exposure to light should also be curtailed;
5. An object is never left on view for more than a few months at time.
6. Reflected from a pointed surface containing Zinc Oxide or titanium oxide absorb nearly all the ultraviolet radiation.

Internal causes or Deterioration:-

The paper made from rags or long fibres are more durable than the paper made from short fibres or wood fibres.

The pupling process is also important to count the internal causes for deterioration of paper. In the mechanical pupling method, the fibres become short and poor in length while pulp made by chemical pulping method, the fibres are long with good strength. That is why the earliest manuscript paper is more durable than modern paper. The causes of deterioration can only be checked at the time of manufacturing of paper.

External Causes of Deterioration:

Acidity does not affect the palm-leaf and birth-bark manuscripts to the same extent as it harms the paper manuscripts. Paper becomes acidic from a number of different causes such as acid form polluted atmosphere, acid sizing like alum hardened and acid pigments and inks, especially iron gall ink. Acidity in paper can be tested with blue litmus paper or pH paper. Acidity causes loss of strength by hydrolysis of the cellulose molecules which can break up their long-chain. Hence the deacidification is quite essential which can be carried out by neutralization. Deacidificatoin will not strengthen paper already embrittled by acid hydrolysis. There are different methods of deacidificatoin.

i) Aqueous method

ii) Non-aqueos method, and

iii) Gaseous method.

Deacidfication is a job of restore and should not be adopted by library staff,

i) Aqueous Method

Barrow's deacidification process

Three enameled trays containing calcium hydroxide (0.15 percent) fresh water and the calcium bicarbonate solution (0.15 percent) are taken. Since the documents are to be immersed completely in all the three trays, the size of the trays should be larger than that of the largest document needing treatment. Depending upon the depth of the tray (2.5 to 5cm.) 20-25 sheets of a book can be immersed in one operation. After 20 minutes, the sheets are removed, excess of calcium hydroxide drained, and the sheets immersed in fresh water for a couple of minutes and then immersed in calcium bicarbonate. The treated papers are dried on white blotting papers.

ii) Non-aqeous deacidification process

David Bavnes-Cope deacidificatoin process

The method, useful when soluble ink or colours preclude immersing in water, is ro wet the paper either by spraying (or immersion) with a 1.9% solution of crystalline barium hydroxide octahydrate in methyl alcohol (18.6gms. in one litre of methanol), followed by air drying keeping the deacidification documents on white blotting papers.

The advantage of Bynes Cope process, in addition to its suitability for ink and documents that cannot be immersed in water, is that it lends itself to spray deacidification. The disadvantages are that menthanol and barium hydroxide are both toxic and must be used with care.

iii) Gaseous deacidificatoin process.

In cases where it is felt that the ink is soluble by contact with water, it is possible to deacidity the documents with dilute ammonia fumes. In this process the documents/ books to be deacidifeid on perforated shelves described for paradichloro-benzene fumnigatoin chamber. Dilute ammonia (1:10) is placed on the bottom of the chamber and the documents/ books left for 4-5 hours. After exposure to ammonia fumes the treated papers are exposed to fresh air 10-12 hours to dispel excess of ammonia in this process, it is essential to test the effect of ammonia on the ink used.

Biological and microbiological causes of deterioration

There are so many biological agents to deteriorate the organic material such as paper and palm leaf These are called 'biodeteriorating agents'. Birch bark is generally not effected by insects or microorganisms.

i) Fungi

Mould which are also called mildews are asaprophytic fungi. They grow on almost any material which can offer moisture and organic nutrients like paper, wood, adhesives, food, oily particles, soot and dust etc.

ii) Mould or Mildew

Mould damage paper by hydrolyzing the cellulose molecule, thus making the paper acidic and weak. They destroy the sizing and often cause patches of very persistent discoloration. The reddish brown stain on paper called 'foxing', is believed to be iron oxides and hydroxides that result from chemical reaction between iron salts and particles in the paper and organic acides released by fungi.

Mildew is eliminated permanently only when temperature is kept between 22 to 24ºC. Fungus affected area can be sprayed 5% thymol in methyl alcohol by hand sprayer. If it is not possible then the vols. Can be fumigated with thymol in thymol fumigation chamber. Dosel oz/ 16 cub.ft.space. Time require 12-14 days. A 40 watt bulb is required to melt and evaporate the thymol in the fumigation chamber.

Insects

The following insects damage the library materials:

1. Cockroaches

They are brown or black in colour and hide themselves in day time, emerge out at night. They eat away pastes and glue from the back of book cover and through the covering cloth of paper and leather bindings.

2. Silverfish

It is wignless insects of about half an inch at full maturity. It is pearl gray and have three tail at the end. They are active in night. Silverfish favours damp, cool atmosphere and eats away starch, gelatine and glue through book cover from back of the binding. They lay their eggs in dark spaces behind the books-shelves.

3. Termites

Termits are also known as white ants. There are many varieties but earth dwelling and wood forms are well known. They attack from the back of the cupboards and book cases and eat their way through wooden shelves and interior of books. They eat away the cellulose materials.

4. Book lice or Psocids

They are minutes grey or white insects and favour to live in dark and damp places. They do severe damages to book paper, photo prints by eating glue and starch. They also eat cotton cloths, natural synthetic fibres an leathers.

5. Book Worms

It includes 160 spercies. Their larvera and adult beetles are generally seen in dark places. In libraries those beetles lay their eggs on the edges of books. The larvae eat in to the books making tunnel in pages through and through.

6. Moths

The larvae are white, hairless, dark headed and about half an inch long in size. They eaty cloth and leather book cover. They lay their eggs in cracks floors and walls.

7. Mudwaps and bed bugs

They do not damage the intereior of books but stain on cover.

8. Rodents

It includes mice, rats, rabbits and squarrels, etc. The female brown rate gives brith to 50 offsprings a year. They eat anything made of paper, leather, vellum and glue etc.

9. Mice

It is also dangerous to paper but less extent then rats. For the protection from insects the periodic inspection is of great importance. If infection is discovered action must be taken at once.

Book worm infested books or documents can be fumigated with paradichlorobenzene in a closed chamber for 21 days and the dose is 5kgs./1000 cubic Feet space. Affected volumes should be kept on the perforated shelves in inverted V shape and the P.D.B. should be kept at the top of the chamber.

Cockroaches, silverfish, whit ants/termites, Book-moths, mudwaps and bedbugs etc. can be controlled by ‘PIP’ insecticide (liquid and readymade). It is pyrethrum base and it can be sprayed (in large scale) by ‘Euroclean’ mono vac vaccum cleaner or by Fumex in the stack area periodically once in amonth.

Napthelene Breaks (at least 500 gms. Wt.each) should be kept on each shelve of almirah or racks. It will acts as insects repellant.

Menance caused by rats/ mice can be effectively controlled by poisoning and trapping. Poisions are always used with baits which are sprayed over places frequented by rats/mice. Dry head and chees have been quite effective as bait base. Some of the good rat poisons are Zincphosphide (3-5%), Arsenic Oxide (10-15%), Sarium Carbonate (10-15%). They best way to use baits in traps.

Accidental Causes

There are so many accidental causes to deteriorate the papers, such as flood, rains, splashing in to the building, leakage of roof, bursting of darining piping, etc. Fire is also a greates accidental agent which damages the museum or library objects specially those of paper in a very short time. It is therefore, imperative thai precautions and prevention against fire must be taken.

Prevention from the accidental agent is also very important for paper material flood and other agents cause to deteriorate the paper and the library

materials. Hence in such a situation the paper objects should be moved to drier surroundings, ideally where best and humidity could be controlled. The conservator would then have to tackle three problems simultaneously, drying, fungicidal treatment and restoration firstaid. Dryig should be proceeded by some fungicudal treatment for also fungi germinate during the process. As condition will allow, the date of drying should be accomplished as fast as possible in order to minimize this mould problem, and to prevent the migration of water soluble constituents.

A solution of 10% thymol by weight in methanol for impregnating pieces of paper can serve as disinfecting sheets by being inter leaved pages of water soaked books manuscripts.

Paper may then be spread on white blotter in a well vetilated room for natural drying. The temp of room may be raised to 30^0C to 40^0C by using hot air convectors. After drying the sheets should be fumigated and repaired before storage.

If mud or dirt has been deposited on papers it can be removed by slight scrapping or washing in warm water (35^0Cto 40^0C).

For large quantity of water soaked papers, the freeze/ vaccume drying process has been accepted as the most suitable.

Recently research workers conducted experiments on rapid drying method, using microwave energy, dielectric or by solvent extraction with or without vaccum assistance

Fire, without doubt, and do the greatest damage to library and museum objects. Hence the electric wiring should be checked periodically. Inflammable products such as paints, varnishes, polishes, oil, organic solvents as well as cleaning fluid

should preferable be stored outside the museum or library building. Smoking must be prohibited in Library Stack storage and packing area. Automatic alarm should be installed at strategical places to detect fire. Their functions must be checked by regular tests.

Extinguishers must be kept in conspicuous places. The periodic recharging is absolutely necessary. In areas where organic materials are kept, the dry chemical type or the carbon dioxide type extinguishers are best.

The completely burnt papers are futile, charred and partially charred papers should be kept separately for treatment. Each sheet must be kept in a separate folder because of its brittleness.

Rough Handing and Improper Storage

Constant handing in an improper manner and improper storage of books and manuscripts damages the sheets and also binding of volumes.

Mentioned above all the treatments are Preventive Measures

The Curative measures of brittle and fragile paper of books/ manuscripts are mending, lamination, encapsulation, book binding etc.

(1) Mending or Repair

The methods of repair adopted in the Asiatic Soceity, Calcutta are full pasting, tissue repair, chiffon repair.

(a) Full pasting

Brittle documents which are written on one side may be strengthened by pasting all rag handmade paper at back. The size of the paper for full pasting should be slightly larger than the size of the document to be pasted over. After drying, the oversize

hand made paper is then trimmed with a pair of hand scirssors to the size of the document, keeping a margin of 2-3 mm. all round to safeguard the edges of the document when in use.

(b) Tissue Repair

Torned sheet of any book, documents, writings on which have not faded and which show only slightly deterioration can be reinforced with Lense tissue paper (imported) by usinf C.M.C. paste or dextrine paste

(c) Chiffon Repiar

Chiffon or fine transparent silk guaze is used for repairing extremely fragile ink corroded or insect damage documents. Before undertaking repair with Chiffon all the slips and patches pasted on the document should be removed. After removal of the patches the documents which is ready on a waxed paper is covered with a chiffon or silk piece slightly large than the document, and dextrine paste is applied to the chiffon piece with a brush starting form the centre and spreading outwards. When the entire document has been so covered and treated with the paste, the assembly is turned over on another waxed paper. The first waxed paper which will be now on the top is carefully removed so that the document remains intact on the second waxed paper. The process of pasting of chiffon piece is on now repeated on the top side. After the chiffon has been fixed on both the sides of document, care being taken to avoid creasing of the fabric, the sandwiched is allowed to dry. The oversize chiffon is trimmed keeping a margin of 2-3 mm.

Lamination

Lamination offers number of advantages over other repairs process. The process can easily be applied to documents written with water soluble ink or colours without fear of their spreading also to printed documents. This process sould applied after deacidification of documents.

Machine Lamination

This process involves hot-sealing a deacidified document with cellulose acetate film of 23 microns (0.00088 inch) thickness and tissue paper by impregnor laminating machines (Yugoslavia).

A 'sandwitch' or envelope is prepared by assembling the materials in the follwing order: tissue paper, cellulose acetate film; document; cellulose acetate and film tissue paper.

The deacidified documents of the volume are placed in such a way that there is a gap 5cm. in between the sheets and 8,2 and 7,3 and 6, and 4 and 5 respectively of a section. In the gap, acid free handmade paper is used to serve the purpose of 'Guard' for stiching the documents.

During the preparation of sandwhich or envelope of paired documents, all loose fragments and the edges of the documents should be carefully fastened to the acetate film in their proper places with a cotton swab dipped in acetone. Each sandwhich or envelope is then placed between two sheet of 'Taflon' (tetrafluorethylene, a synthetic resine coated glass fabric) before feeding it into lamination machine. The temperature and pressure of the lamination machine are 150-155^{0}C and 25 to 40 kg./Cm^2.

Solvent lamination

The processes of lamination described require relatively expensive equipements which is beyond the financial resources of small archive cetres of repair shops. Some archive institutions also hesitate to use high temperature and pressure for the restoration of their holdings. Such repair centers could employ the manual process of lamination in which an organic solvent (Acetone) is used soften the plastic film.

This is a sample, cheap and an effective process for restoring brittle and fragile documents. The document is prepared in fiveply sandwhich with cellulose acetate film and tissue paper. Using a cotton swab, acetone is applied to the centre of the surface of the sandwhich and wiped towards the edges. The procedure is repeated on the other side of the sandwhich, and the laminates is then pressed in an ordinary binder's press. All types of paper, irrespective of their thickness, may be repaired by this process. In this process the acetone soaks through the tissue paper and converts the cellulose acetate film into gel form. This operation takes fifteen to twenty seconds.

This process eliminates the need for high temperature, high pressure and expensive equipment. It gives better legibility, does not increase likelihood of insect attack and adds little to the thickness of the document. It is suitable for the repair of documents written in water soluble inks and colours, carbon copies and documents with seals. It is also suitable for joining torn pieces of documents and for ever type of repair. A part from the advantages of the process itself, the lamination so formed is much lighter than that produced by machine, for the document only retains the mimimum quantity of cellulose acetate necessary for bonding it to the tissue paper, where as machine-laminated documents retain the entire cellulose acetate film. In other

words, a bound volume of documents of the same size and type repaired by solvent lamination is much lighter than a similar volume repaired by solvent lamination is much lighter than a similar volume repaired by machine laminating processes. The solvent process possesses, moreover, all the advantages of heat lamination processes and yet requires no expensive technical equipment. The only equipment and materials required are a glass topped table, cellulose acetate film, tissue paper or chiffon, acetone and cotton swab.

Certain precautions are necessary when repairing documents by this process. Care should be taken to ensure that (a) there is no smooking in the room and that no naked flame whatever is allowed; and (b) there is proper air circulation and that acetone fumes are removed by means of exhaust fans.

There is no longer of toxicity and no hazard to workers when the process is carried out in premises thai are fairly well ventilated. Acetone is used extensively in laboratories and industry and no ill effects as result of using this chemical have been reported. Persons whose skin sensitive should, however, wear surgeon's gloves while applying acetone with surgical cotton.

Encapsulation

For the protection of twol sided manuscript leaves or sheets of a book that have become very fragile and brittle, probably a better course is to enclose them between two polyester or polypropylene films. A non plasticized polyester polypropelene film is used for encapsulation. Encapsulation differs from other more traditional forms of support such as lamination. It is simply held in position, trapped between two surfaces which form a physical barrier against potentially harmful external

forces. The polyester barrier is very tough and effective in protecting against handling and abrasion. It is impervious to water but allows the slow transmission of vapoures. All edges can be completely sealed on tiny-gaps can be left at the corners to allow an increased exchange of air. Research by the library of the Congress suggests that this increased exchange helps decrease the rate of deterioration but the difference is very negligible. So there is no need for keeping tiny gaps of the encapsuled documents to avoid atmospheric polluton, dust and insects.

The single sheet encapsulation is most common. But several encapsuled sheets can be assembled in book form.

The advantages of encapsulation are-

1. It gives excellent support and protection with minimum interference to original item;
2. There is no visual difference between the print and the encapsuled print document;
3. Encopsulation is instantly and fully reversible without damaging the document;
4. The intergrity of an item is preserved;
5. Encapsulation gives protection from water;
6. Polyester/ Polypropelene films on different thicknesses are easily available the market and it is very cheaper than imported tissue paper and cellulose acetate film;
7. Polyester/ Polypropelene films are very strong, clear, neutral and resistant to wrinkling;

8. Cost of encapsulation with polyester/ Polypropelene films of 1 s.q.meter size is not likely to exceed Rs.10/- which is cheaper than the lamination with cellulose acetate film and tissue paper,
9. Polyester/Polypropelene film has no nutrient value and therefore, does not attack insect and fungus. It is imprevious to air and water and therefore, protects the encapsuled paper from the delaerious effects of a atmospheric pollution.

Binding

Documents strengthened by any of the mentioned above processes requiring binding are bound by the normal processes, with slight but important variations here and there. The different stages of binding i.e. gathering and guarding, stiching, back rounding and backing, fixing boards and covering, etc. are all carried out manaually. Only the best materials, from thread and tape to board and leather, should be used. In binding primary for conservation purposes, the accent is on both durability and permanence, and it is therefore, essential that the workmanship be of a high calibre.

Specification of Repair Materials

Hand-made paper

It shall have a folding endurance of at least 500 double folds at 1 kg. tension under I.S.I test condition.

Tissue paper

Tissue paper for repair of records should conform to the following requirements:-

Alpha cellulose content not less than 88%.

Weight and size: 9gms/sq.metre (63.5 X 127cm.) 500 sheets Ash content not more than 0.5%.

P^h not less than 5.5.

The tissue paper shall be free from oily and waxy constituents.

Chiffon

Chiffon used repair shall be fine, pure and white silk guaze, having a mesh count of 33 X32 per sq. cm.(83 X82 per sq.inch.).

It shall have a thickness of 0.085mm. (average) and a pH of 6.0-6.5.

Long Cloth

Long Cloth used for mounting maps and charts of heavy weight shall be of fine bleached quality, having average thickness of 0.1mm. and mesh count 35 X28 (approximately) per sq.cm. It shall be of even weave from knots etc. in threads and shall not contain sizing materials.

Cellulose Acctate Foil

The cellulose acetate foil recommended for lamination should have a thickness of 0.0223mm. should be flexible, semimoisture proof and should not change in colour and flexibility when subjected to accelerated ageing at $103^0C \pm 2^0C$ for 72 hours.It should be free from nitrate should have a stable plastizer.

Formulea and Preparation of Dextrine and Starch Pastes

Dextrine paste

FORMULA

Dextrine	2.5kg.
Water	5kg.

Oil of Cloves	40 gm.
Saffrol	40 gm.
Barium Carbonate	80 gm.

Thin starch paste

FORMULA

Starch (maida)	250 gm.
Water	5 kg.
Oil of Cloves	40 gm.
Saffrol	40 gm.
Barium Carbonate	80 gm.

New Synthetic Adhesive for Repair of Documents, with Tissue paper and chiffon Sodium Salt of Carboxymethyl Cellulose

To prepare the paste measured quantity of water is heated in 80-90^{0}C. The heating is discontinued and sodium salt of carboxymethyl cellulose is added in small quantities with gradual stirring till a concentration of 2.5 to 3 percent (by weight) of the chemical is obtained in the solution.

Leather preservation Mixture

1. Lenol inanhydrous	800 gm.
2. Bess-wax	15 gm.
3. Cedar-wood oil	30 ml.
4. Benzene	350 ml.

Repair Equipment Required in a Record Office

1. Repiaring table, preferably with glass top
2. Small hand press
3. Paper trimmer
4. Scissors (long)
5. Knives
6. Paring Knives
7. Cups (enamelled or brass)
8. Dishes (enamelled or brass)
9. Brushes (camel hair, 2.5-1.25cm.wide)
10. Paper cutting slices (preferably made of horn)
11. Foot-rule
12. Sewing needles (big and small)
13. Bodking (for piercing holes)
14. Enamelled trays
15. Glass plates
16. Degchi for preparing dextrine, maida and C.M.C pastes
17. Electric plates

List of firms dealing in repair, Preservative Materials and other allied Equipments

Nephthelene Bricks 500 gms. Weight

Messrs.Bengal Chemical & Pharmacutical Works Ltd.6, GaneshChandra Avenue, Calcutta- 700 013

Paradichlorobenzene & Thymol-Local dealers.

PIP- Mrityunjay Stores, 27, Biplabi Rash Behari Bosu Road,

Calcutta- 700 001

Preservation Chemicals-M/s. Suppliers Syndicate, 2, Church Lane,

Calcutta-700 001

And other Materials-M/s.Wasson Brothers, 26, J.N.Road,

Calcutta-700 087

M/s A.K.Udyog, 22/4, Mondalpara Road, Calcutta-700 034

M/s.Ideal Scientific Concern, 1, Gomesh Lane, Calcutta-700 014

Tissue paper (Imported) –M/s R.S.Enterprises, 162/A/10, S.N. Roy Road, Adarsh Pally,

Calcutta-700 038, ph: 2478-9585.

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